Solvitur Ambulando

Going beyond the fast-paced Schaerbeek



Unveiling post-industrial urban leftovers to enhance community connection and suburban lifestyles through walking in Brussels' Friche.

Urban Architecture - Last green in town - Master Architecture, Urbanism and Building Sciences

Gianluca Angeli - 5690986 - 2023-2024

Solvitur ambulando



“Camminando si risolve”
“It is solved by walking”
(Diogenes of Sinope)



Nature and Escapism

(Chapter 1)



Latium Volcano aerial view, Rome



Latium Volcano Landscape, Rome

Exploration and walking



Parco degli acquedotti, Rome

The world is too much with us; late and soon,
Getting and spending, we lay waste our powers;
Little we see in Nature that is ours;
We have given our hearts away, a sordid boon!
This Sea that bares her bosom to the moon;
The winds that will be howling at all hours,
And are up-gathered now like sleeping flowers;
For this, for everything, we are out of tune;
It moves us not. Great God! I'd rather be
A Pagan suckled in a creed outworn;
So might I, standing on this pleasant lea,
Have glimpses that would make me less forlorn;
Have sight of Proteus rising from the sea;
Or hear old Triton blow his wreathèd horn.

The world is too much with us,
William Wordsworth, Poems, in Two Volumes, 1807



Rain, Steam, and Speed,
Joseph Mallord William Turner,
1844



Landscape,
Asher Brown Durand,
1850

Reaction to cities stress in bucolic nature



Bathers at Asnières,
Georges-Pierre Seurat,
1884

People looking for nature in cities

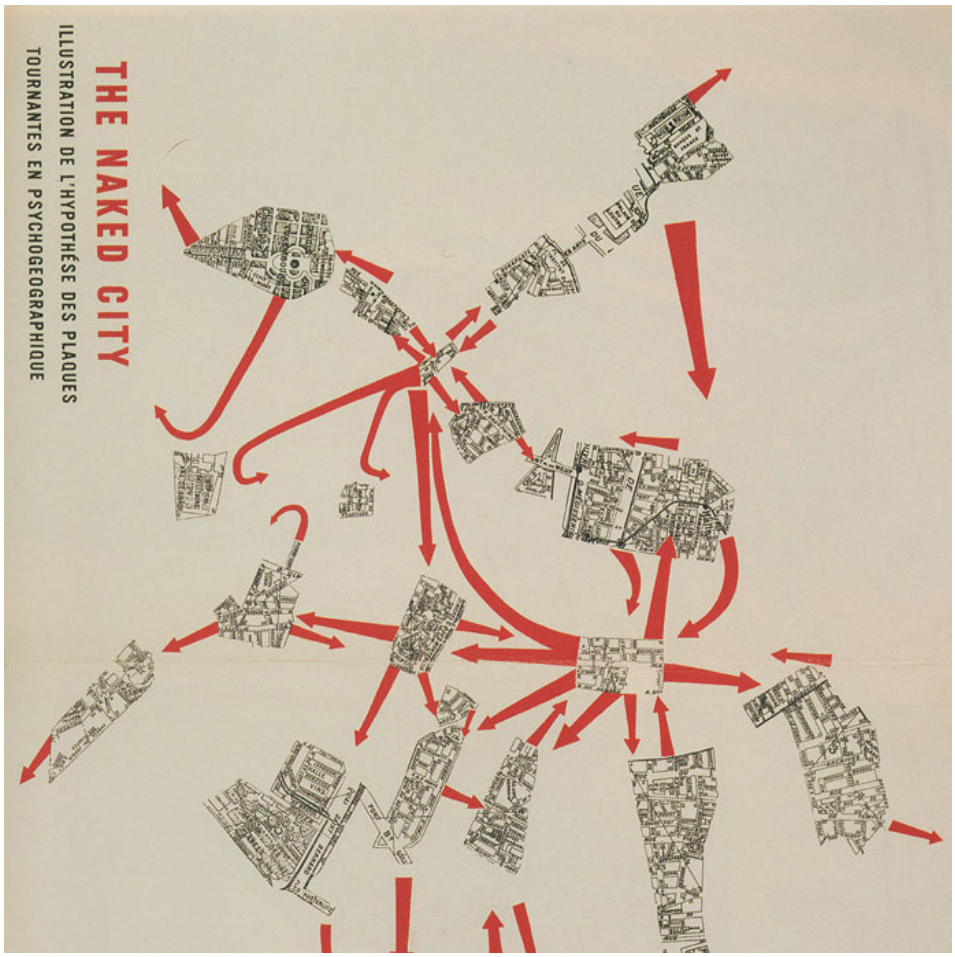
Spending time in natural settings allows individuals to engage in effortless or involuntary attention, by providing a restorative experience for directed attention, thanks to the rhythmic movement of walking combined with the sensory input from the natural environment.

Urban environments, with their high levels of stimuli and attentional focus, can lead to mental fatigue and diminish cognitive performance.
Walking in natural spaces offers a particularly effective way to restore attention and cognitive functions.



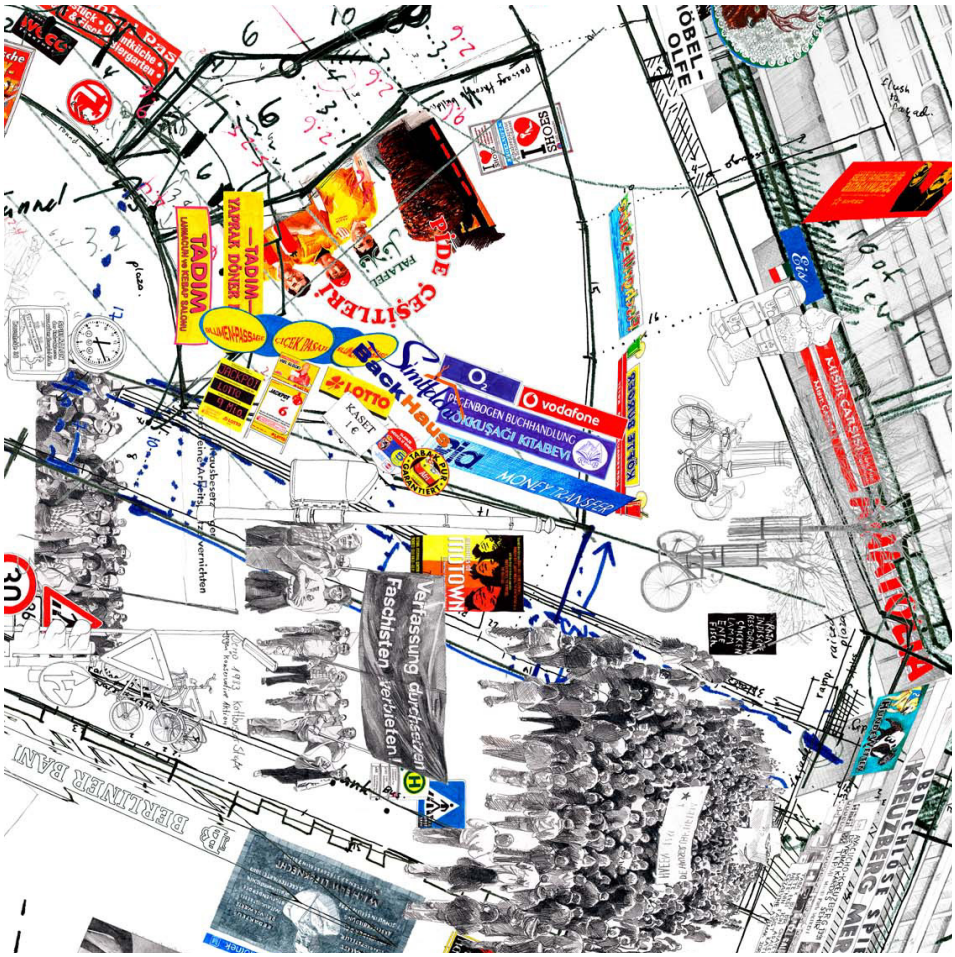
Walking as a method

(Chapter 2)



The Naked City,
Guy Debord,
1957

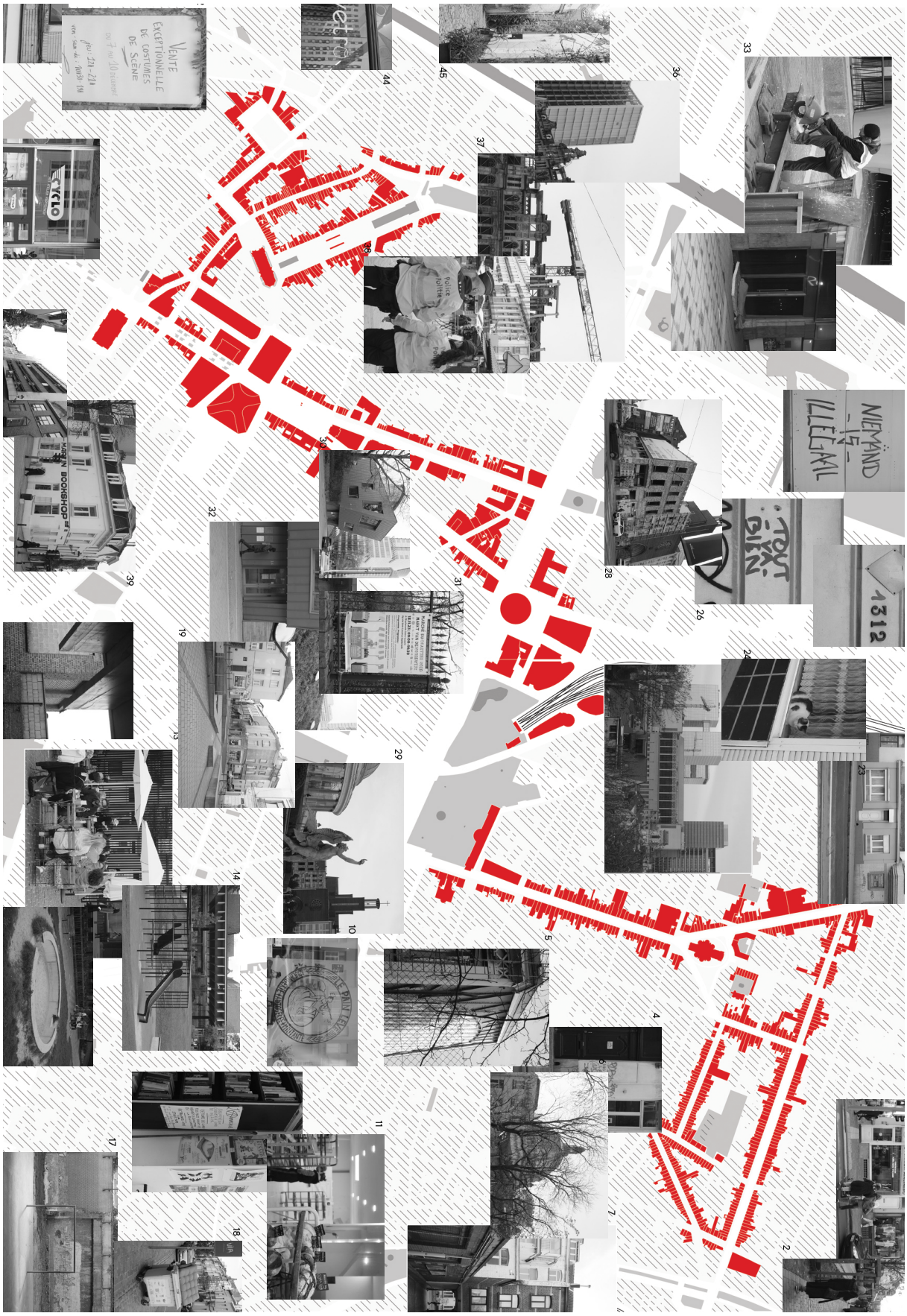
Situationists - Guy Debord



Berlin's Kottbuser Tor,
psychogeographically mapped by Larissa Fassler,
2008



Campagna Romana and "territori attuali",
Osservatorio Nomade - Stalker,
2006

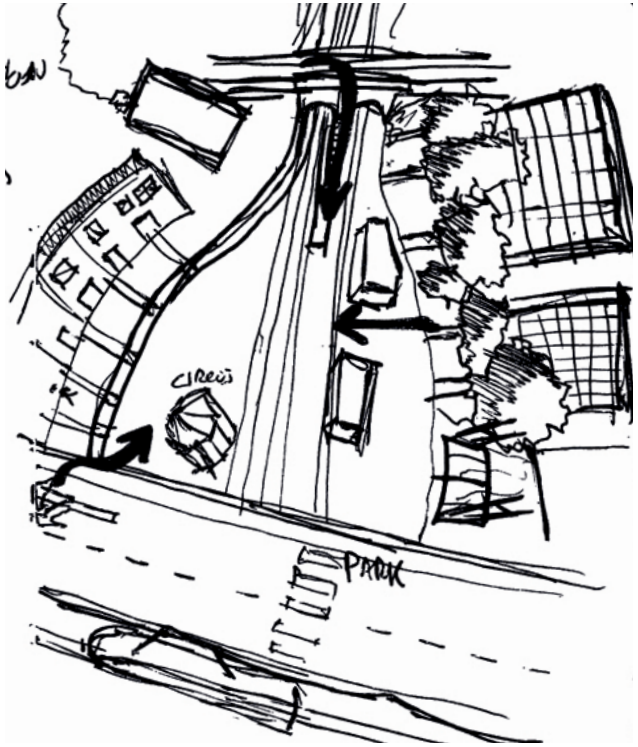


Walking as an analysis method

How does walking influence both the walkers and their perception of space?

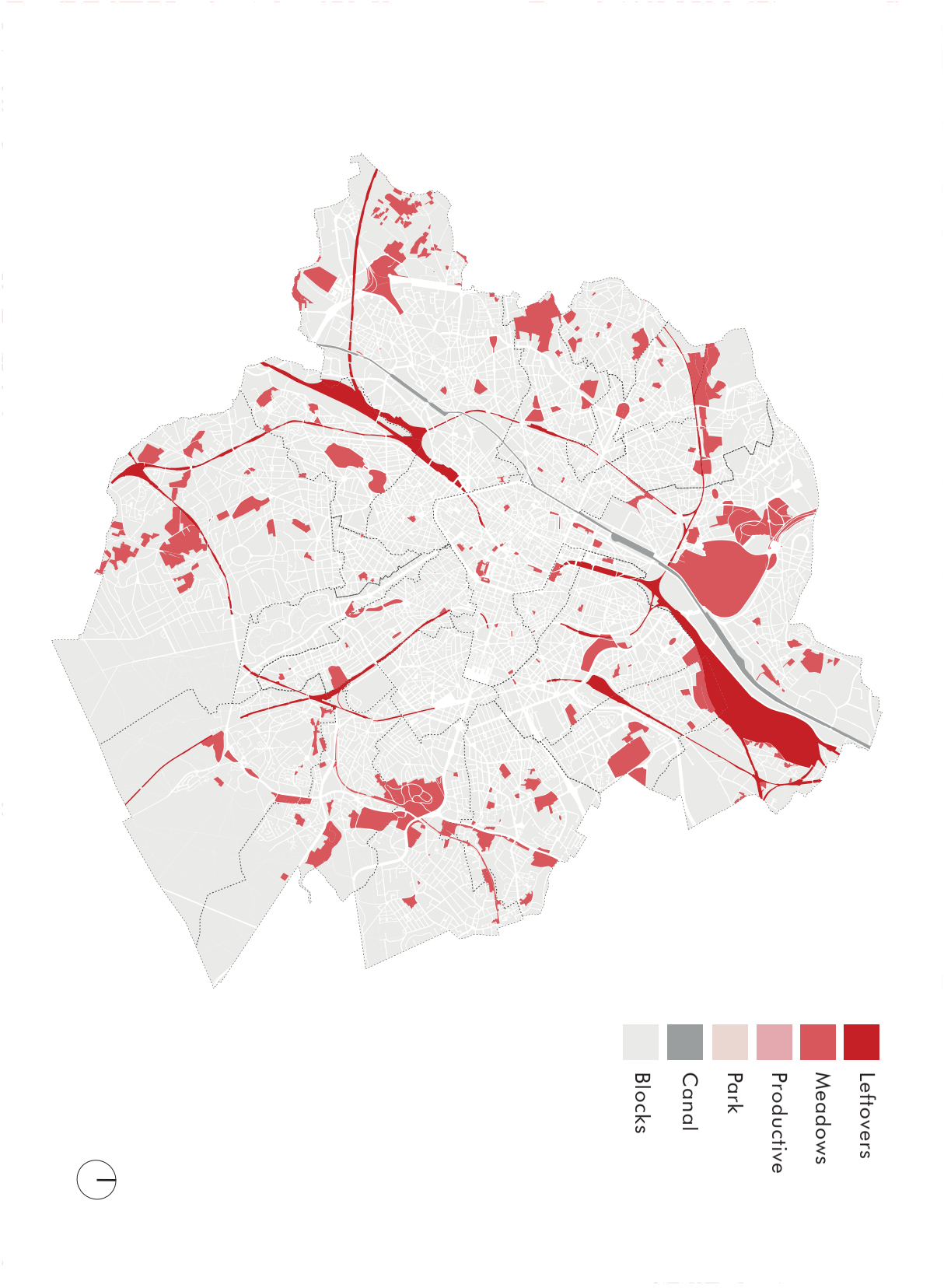
In today's fast-paced society how beneficial is walking as an escape?

(Research questions)



Wastelands and Leftovers

(Chapter 3)



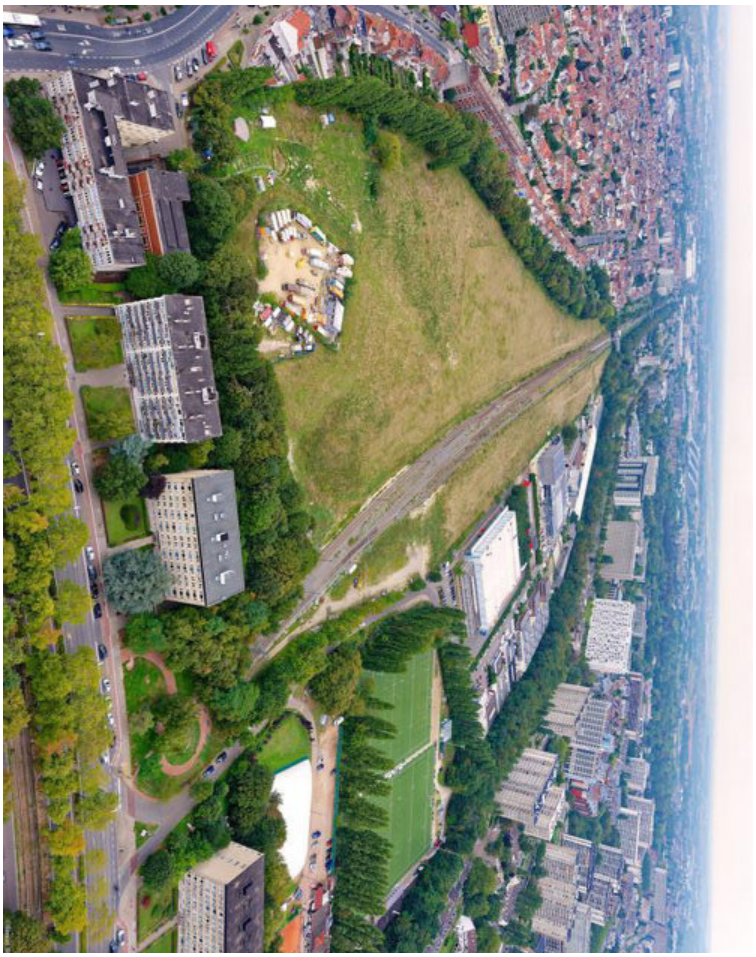
Bruxelles Green Spaces



North Bruxelles



Friche Josaphat



Friche Josaphat, aerial view, Bruxelles

Friche Josaphat

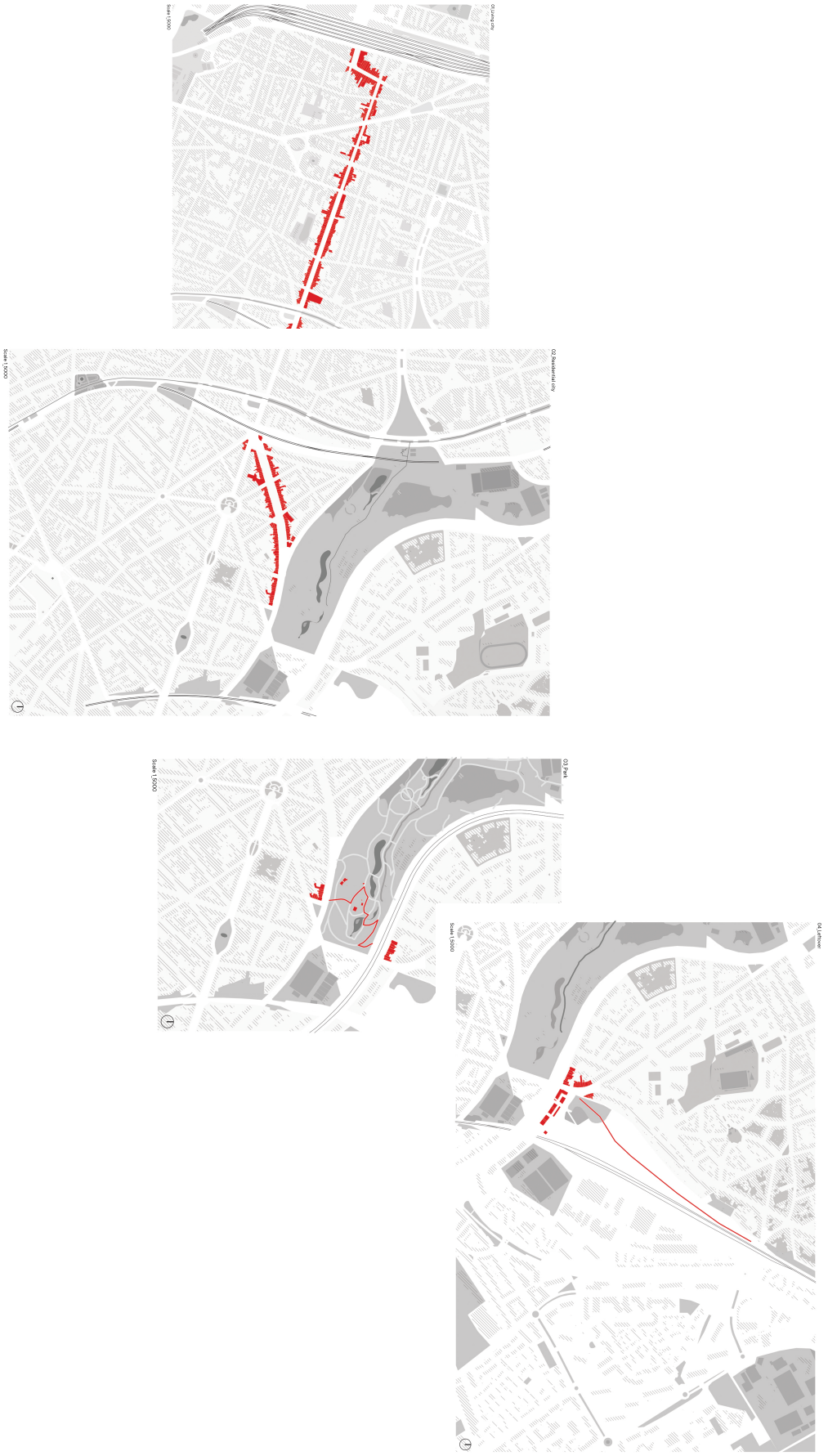


Railways Bruxelles 2023

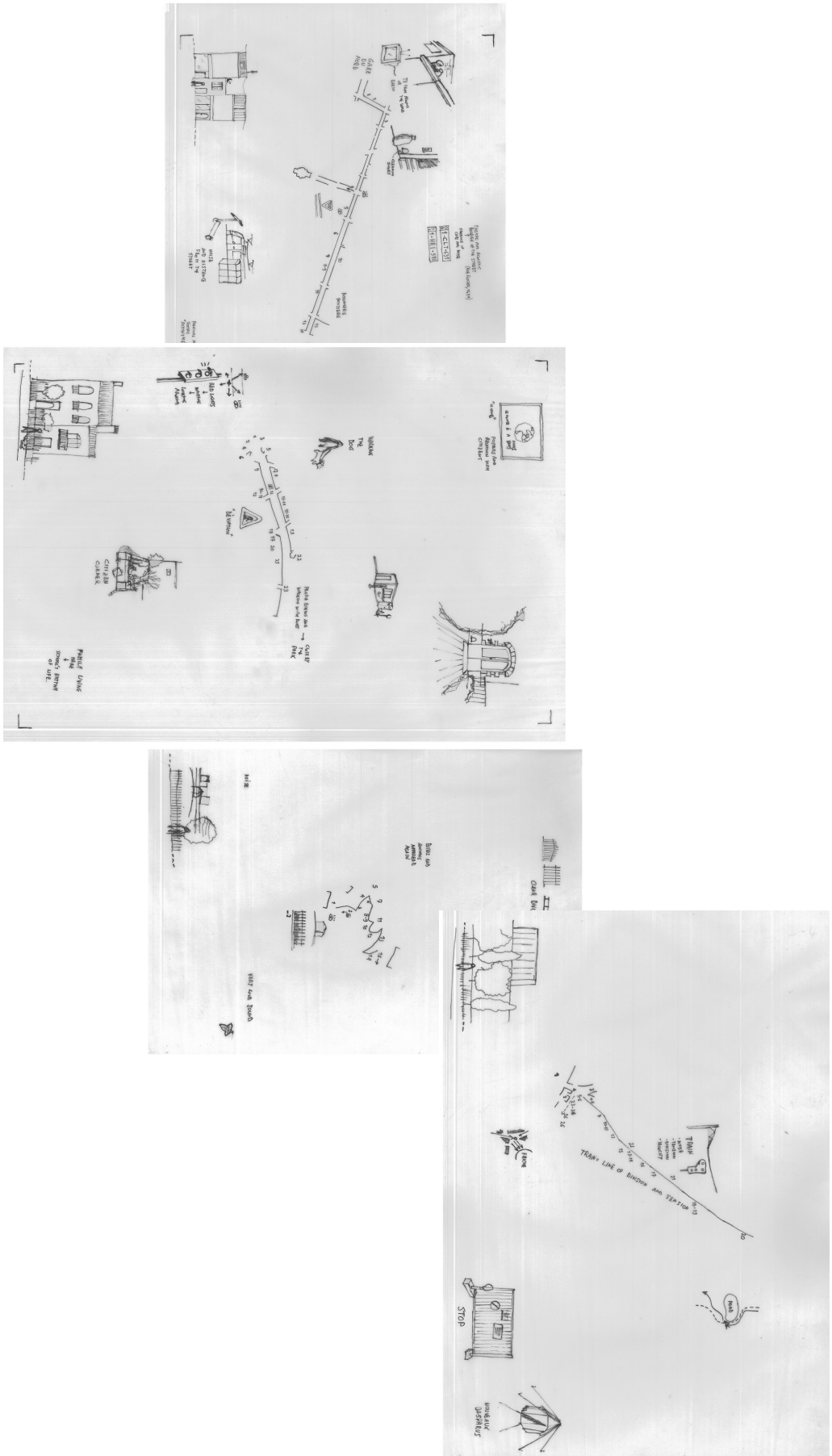
Station to station
Model analysis Station Evere
Angeli Gianluca, Meindertsma Jara Massimo, Naik Harit, Vissers Bo,
Wierikx Daan

People are on the move throughout the day and the train station is the place where the movement of different people intersect. Each person carries their unique story, their own purpose to travel, and their own reason to be at a specific place at a particular time.

Our final model responds on this strong visual connection between the platform and the nature in front. The distinct boundaries separating them, are translated into the notion of a stage, detached from nature.



Walking as an analysis method - Maps



Walking as an analysis method - Notes



Walking as an analysis method - Pictures

Masterplan and main accesses

How does walking influence both the walkers and their perception of space?

In today's fast-paced society how beneficial is walking as an escape?

Considering the Friche Josaphat as a leftover space of the post-industrial city, as most of the green areas surrounding the city centre of the most important European cities, what could those spaces generate and host to accommodate the inhabitants of the suburbs?

(Research questions)



Bridge and Square

(Chapter 4)



Friche Josaphat and boulevard Lambremont, aerial view, 1960



Friche Josaphat and boulevard Lambremont, aerial view, 1930-35



Friche Josaphat and boulevard Lambremont, aerial view, 1987



Friche Josaphat and boulevard Lambremont, aerial view, 2012



Friche Josaphat and boulevard Lambremont, aerial view, 2023

Theatre "Les Nouveaux Disparus"



Les Nouveaux Disparus



Commons Josaphat

Commons Josaphat

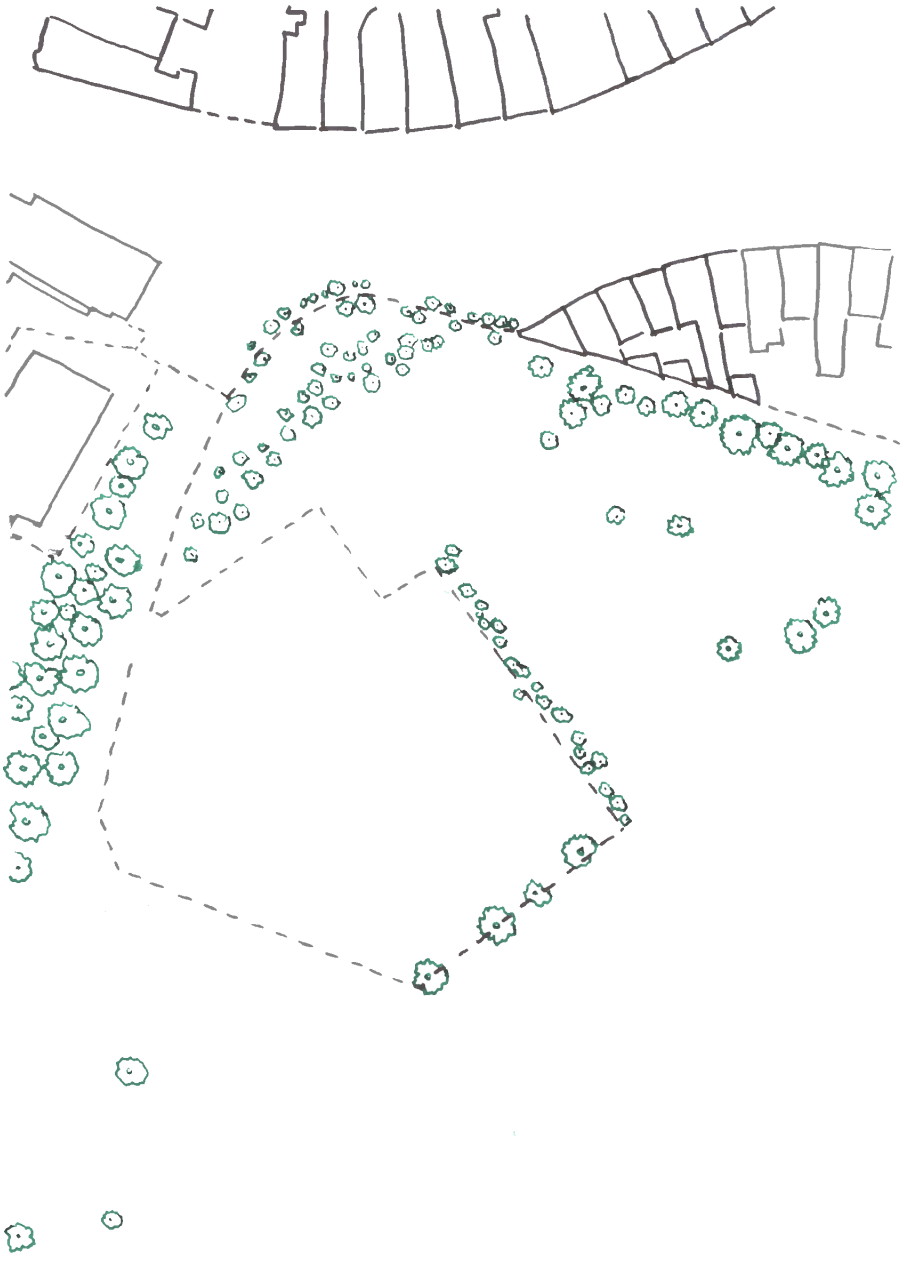


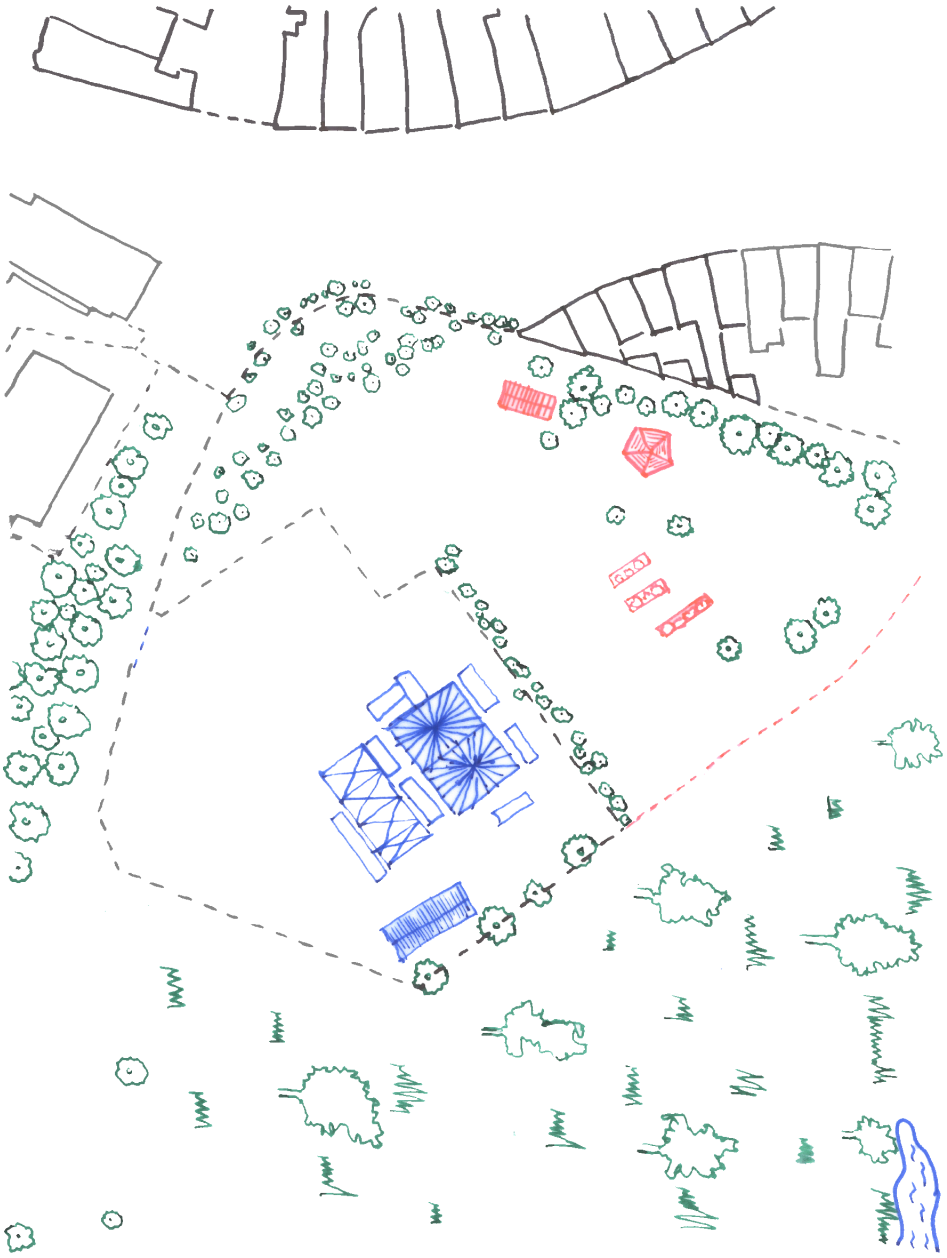


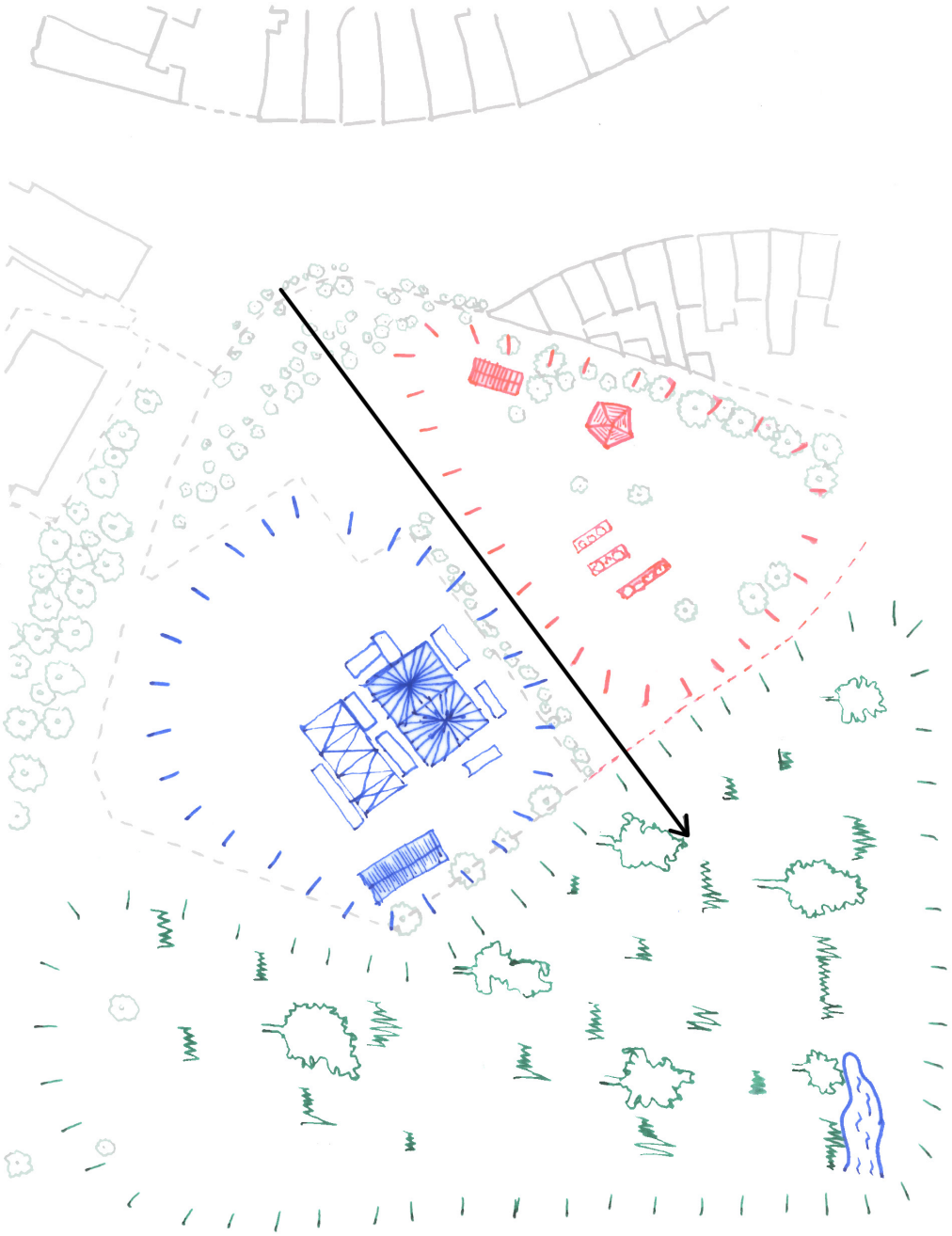




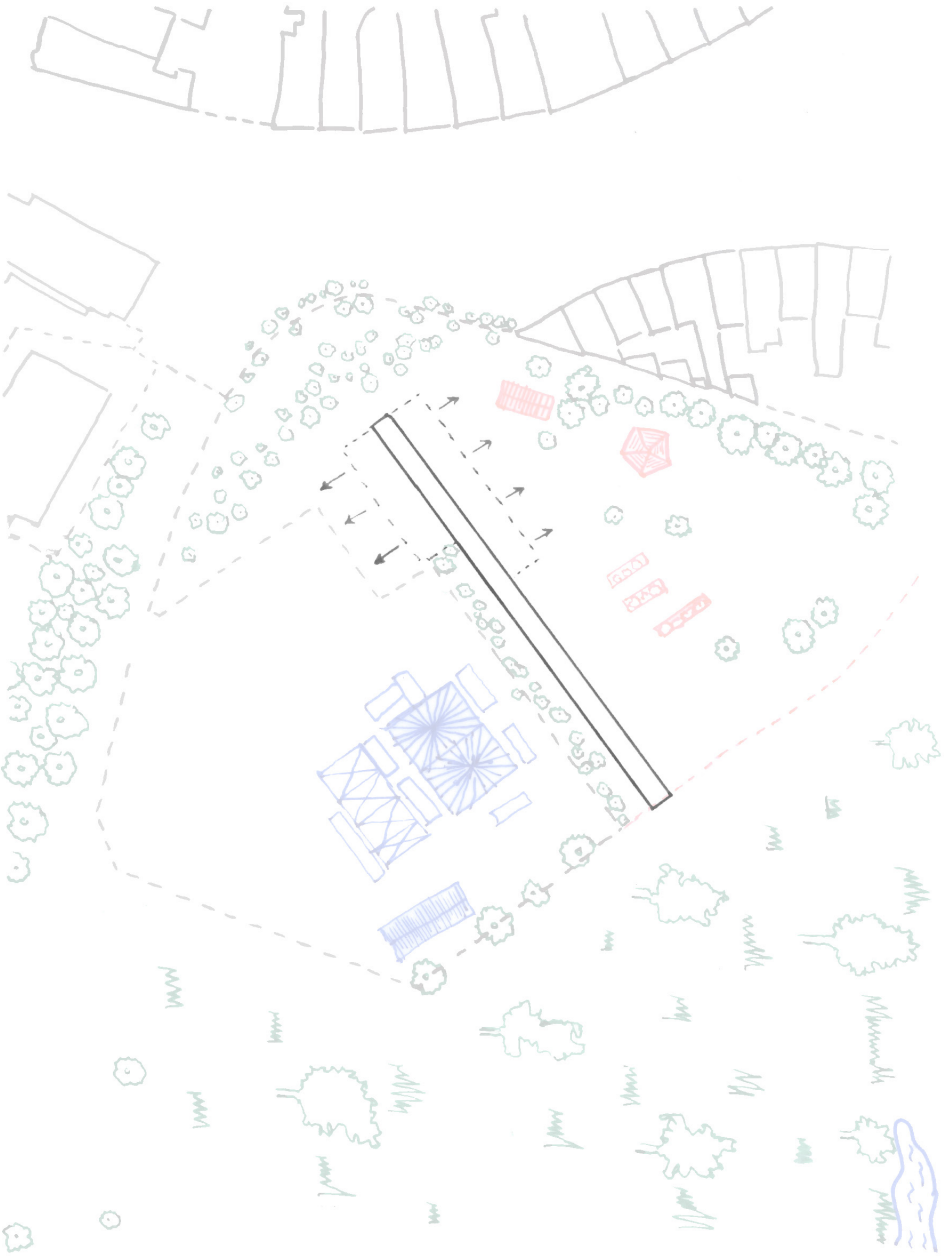
Entrance to the Friche



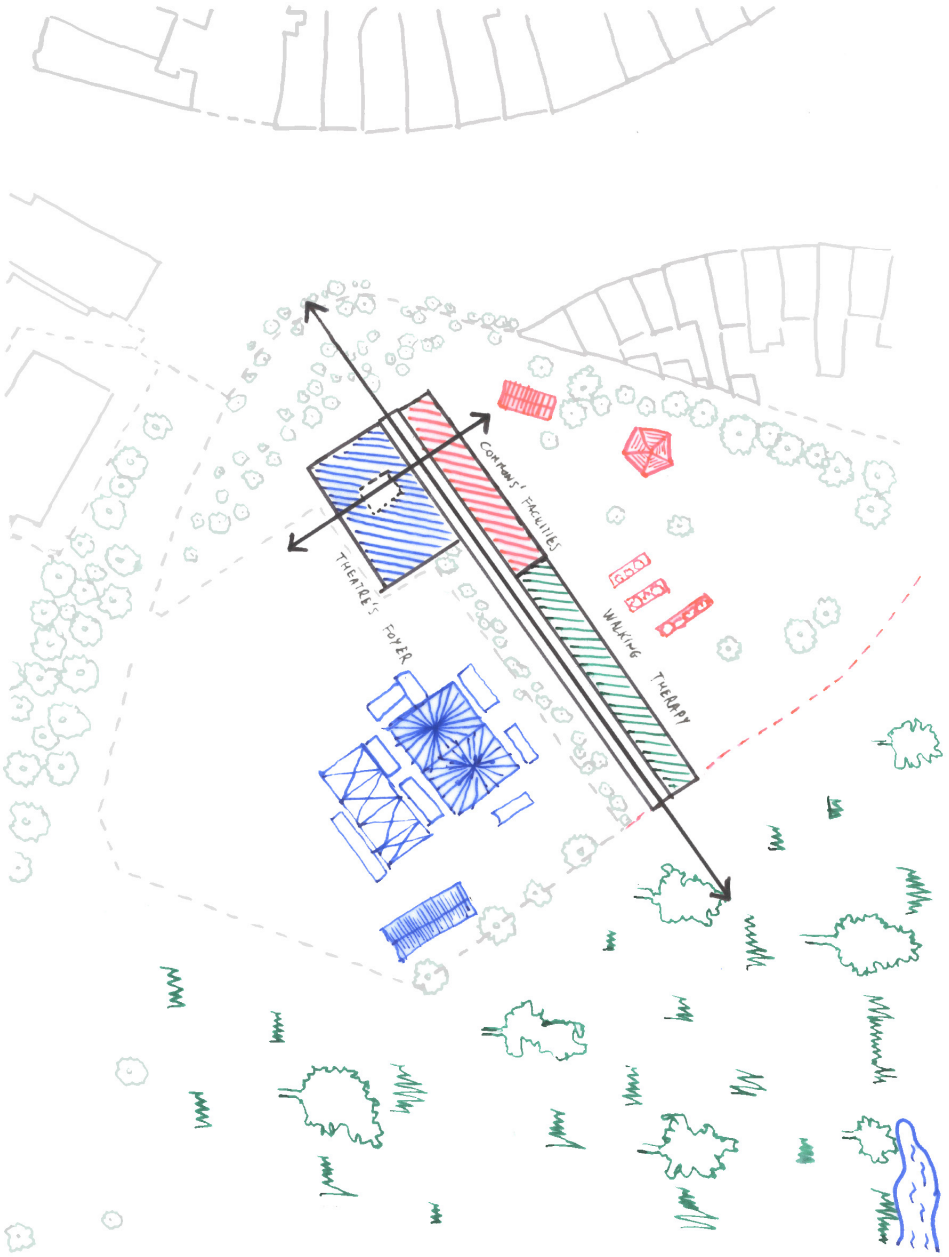




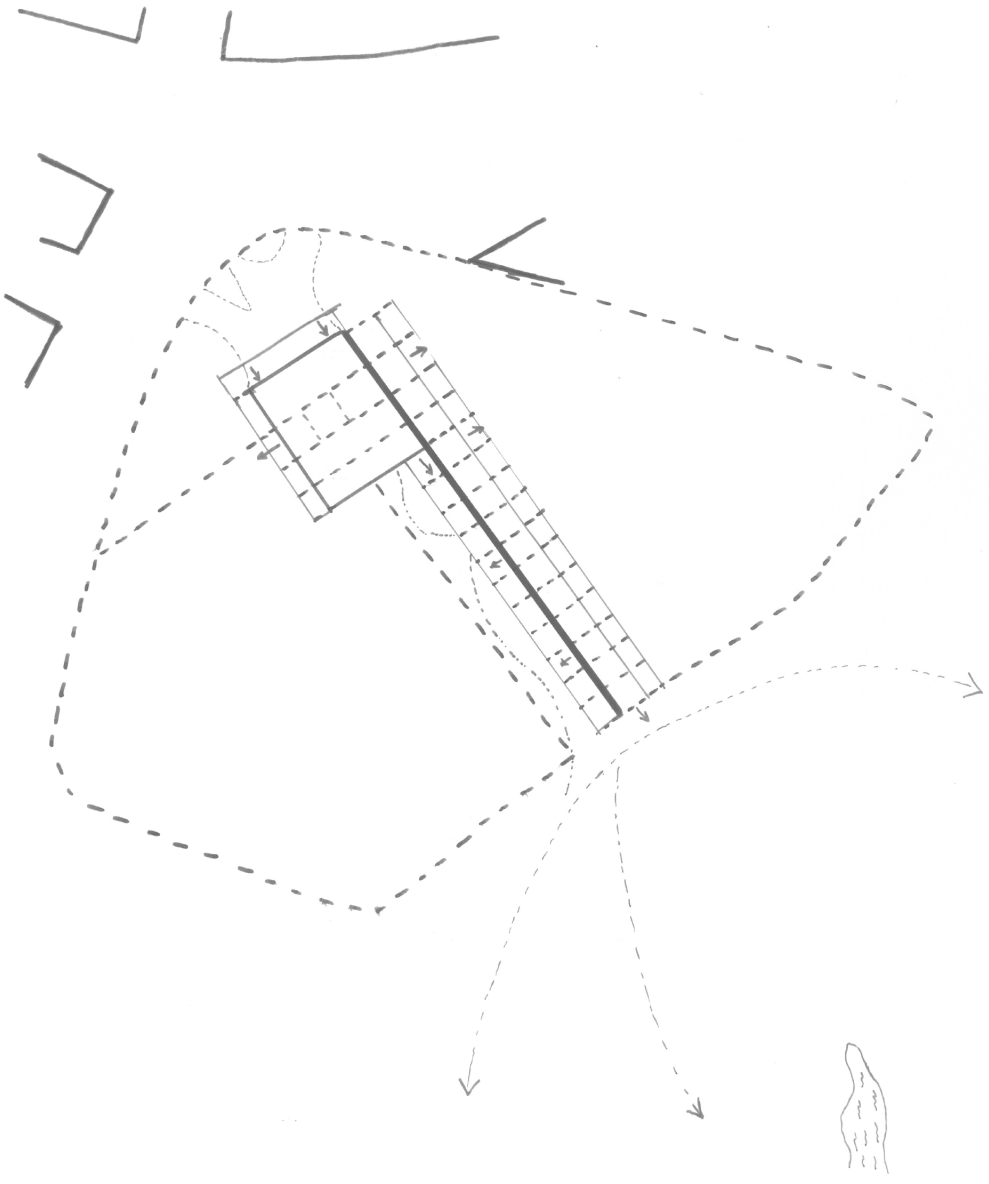
Activators and Connectors



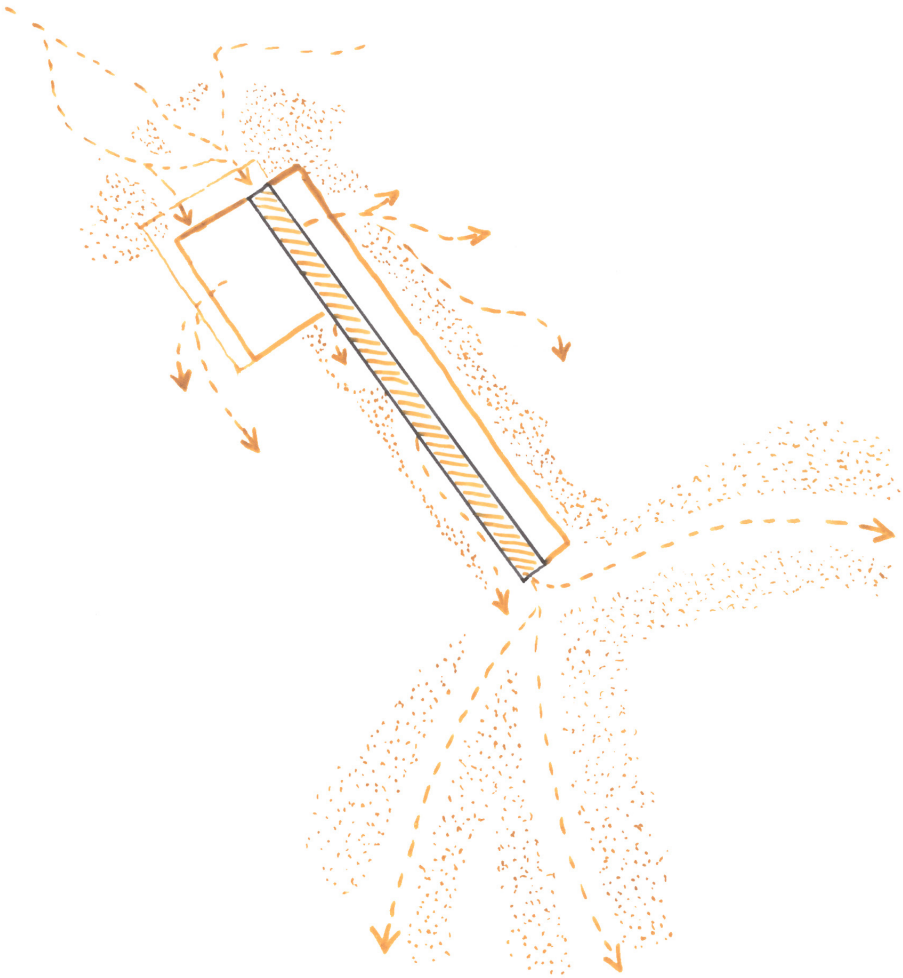
Concept



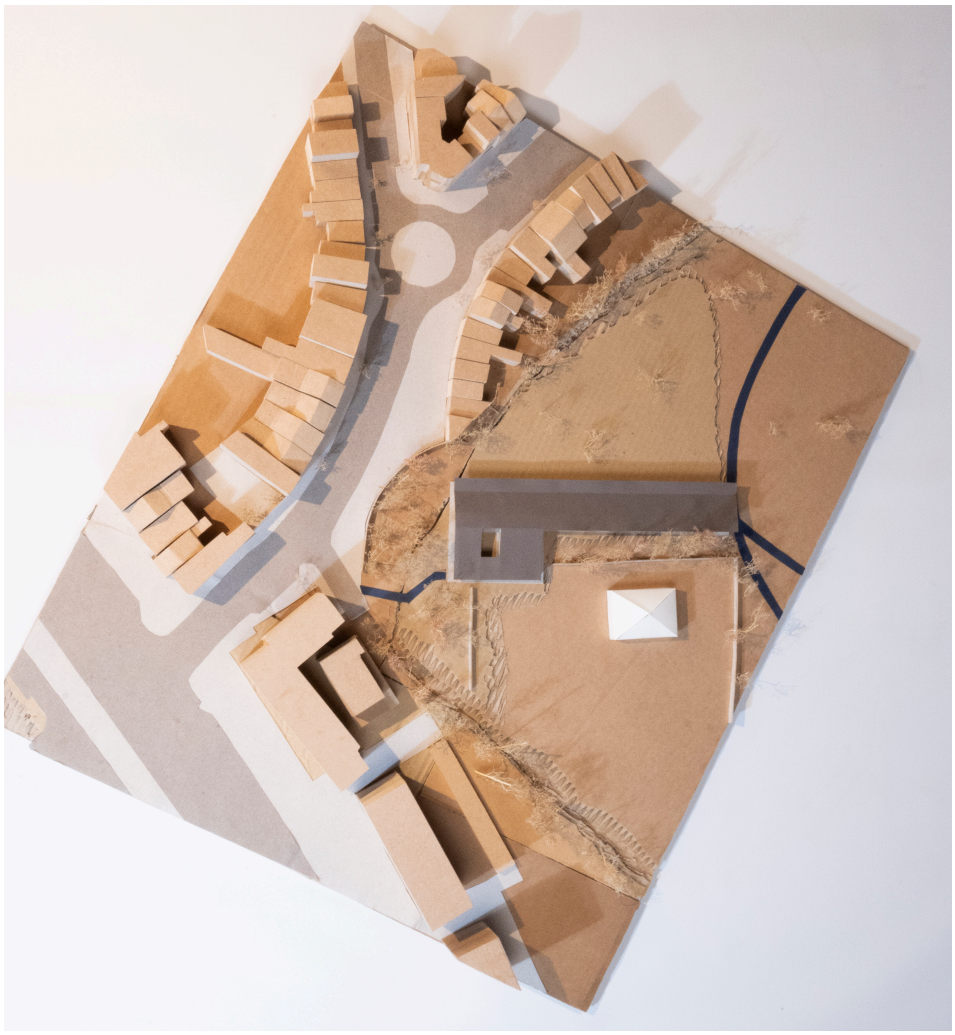
Programme



Rhythm and Direction



1:333 site model



Site Model

1:333 site model



Site Model

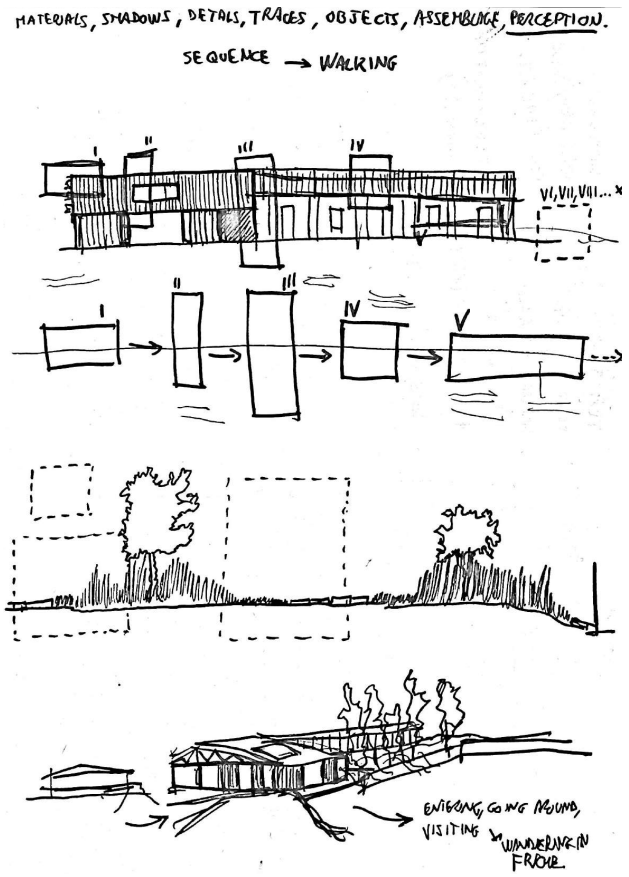
1:333 site model



Site Model

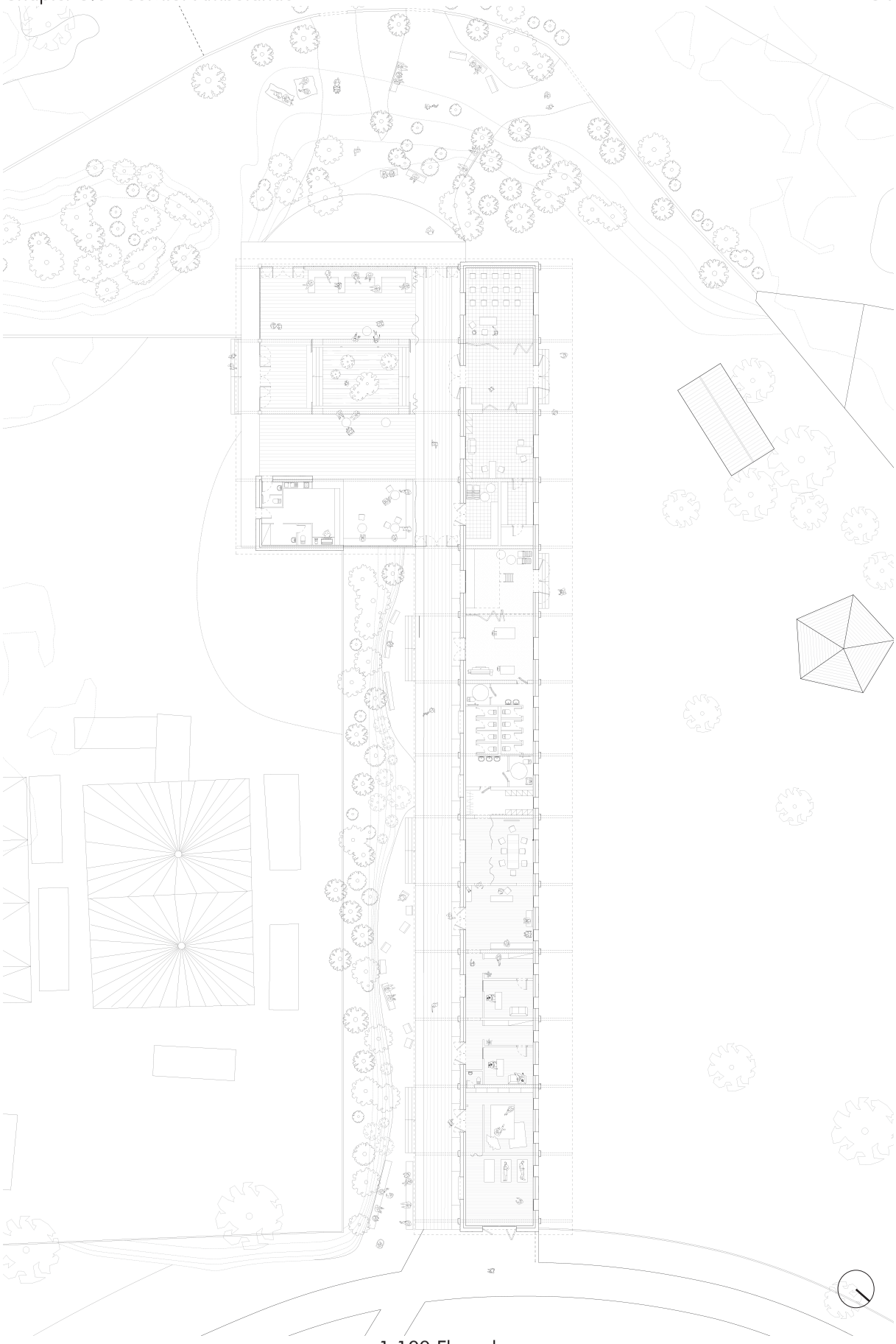


Urban plan 1:1500

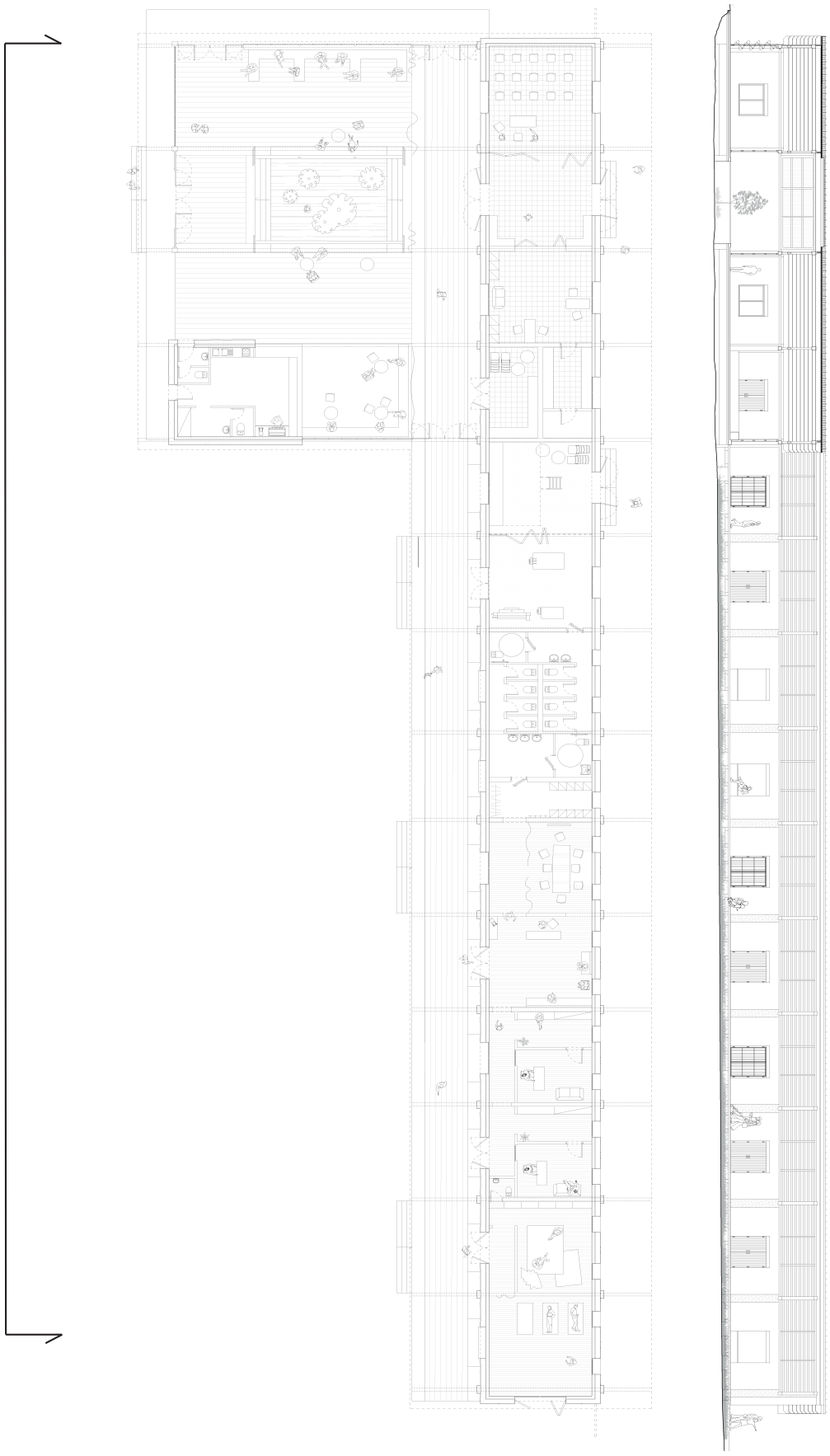


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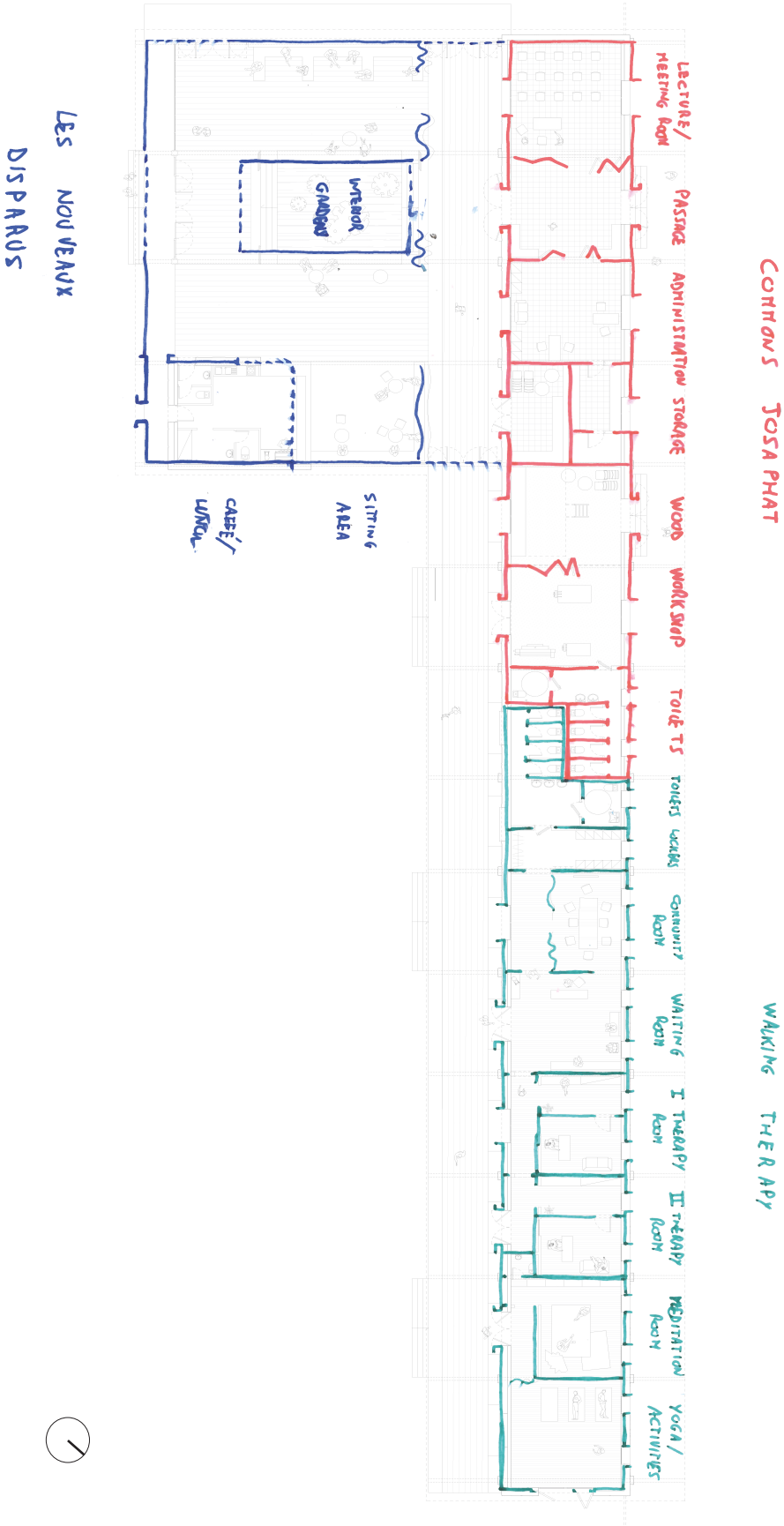
(Chapter 5 - part 0)



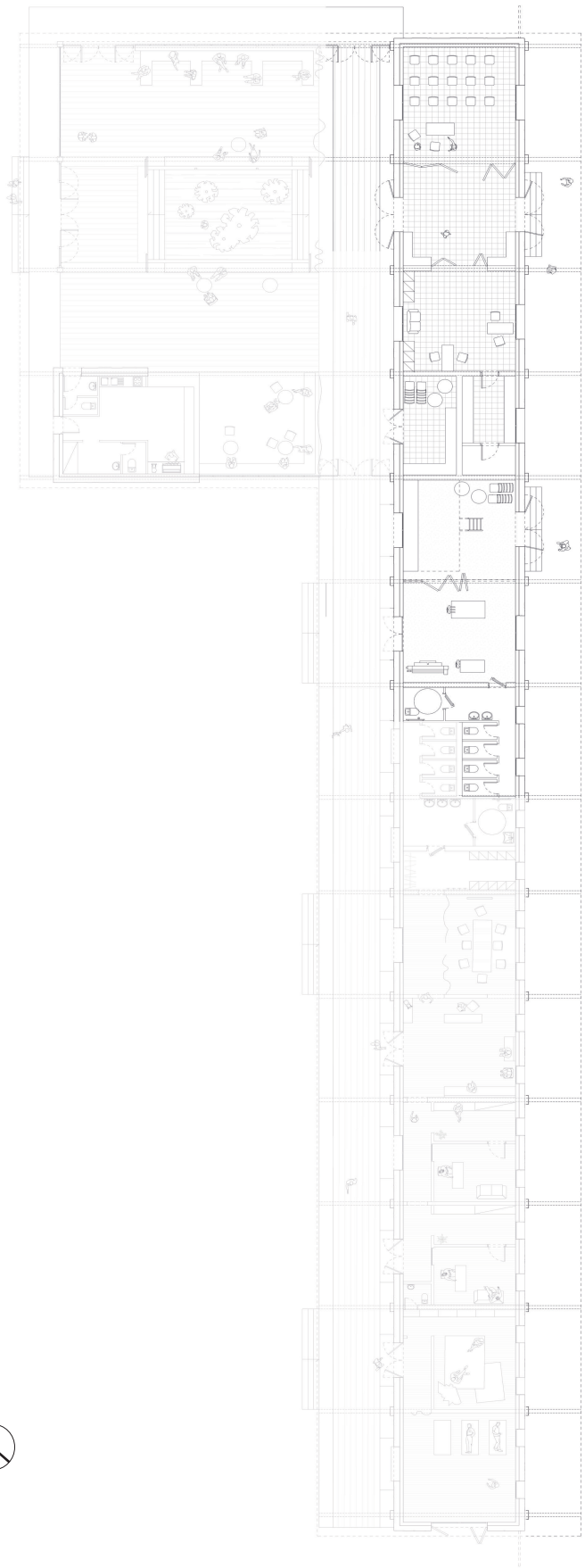
1:100 Floorplan



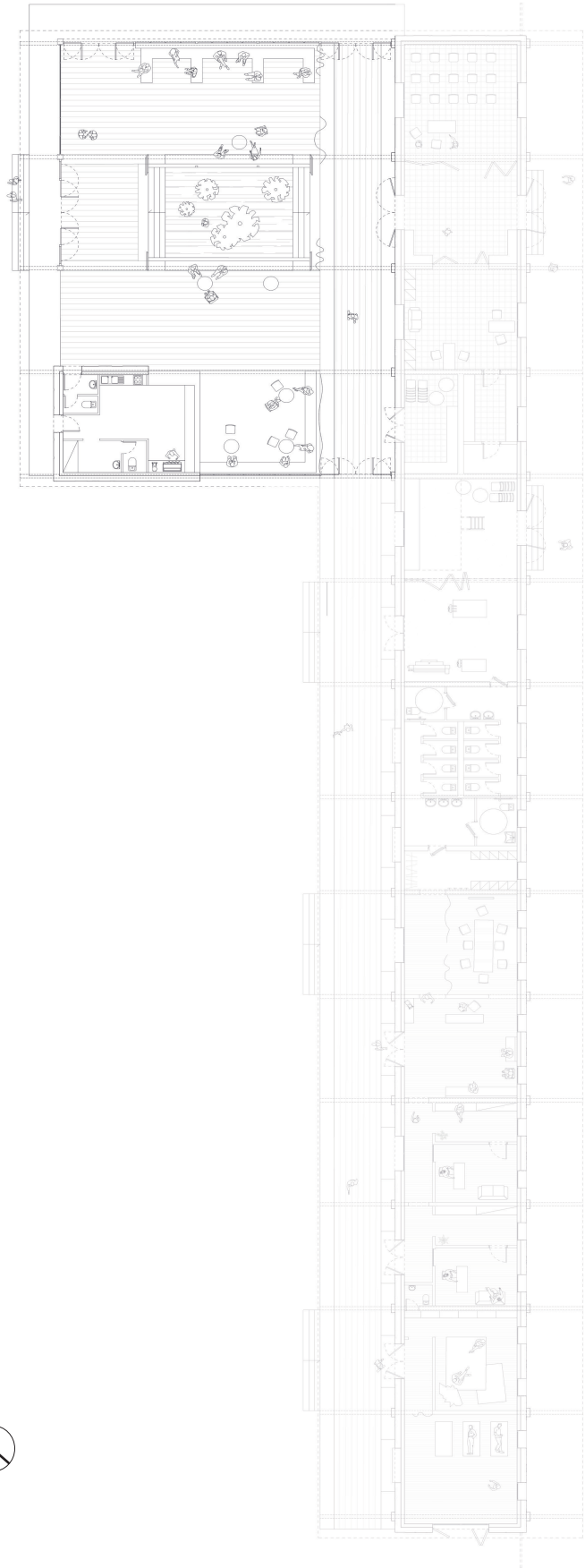
1:75 Floorplan and Section


LES NOUVEAUX DISPARUS
INTERIOR GARDEN
SITTING AREA
CAFÉ/ LUNCH
COMMONS JOSA PHAT
WALKING THERAPY
LECTURE/ MEETING ROOM
PASSAGE
ADMINISTRATION STORAGE
WOOD WORKSHOP
TOILETS
TOILETS LOCKERS
COMMUNITY ROOM
WAITING ROOM
I THERAPY ROOM
II THERAPY ROOM
MEDITATION ROOM
YOGA/ ACTIVITIES

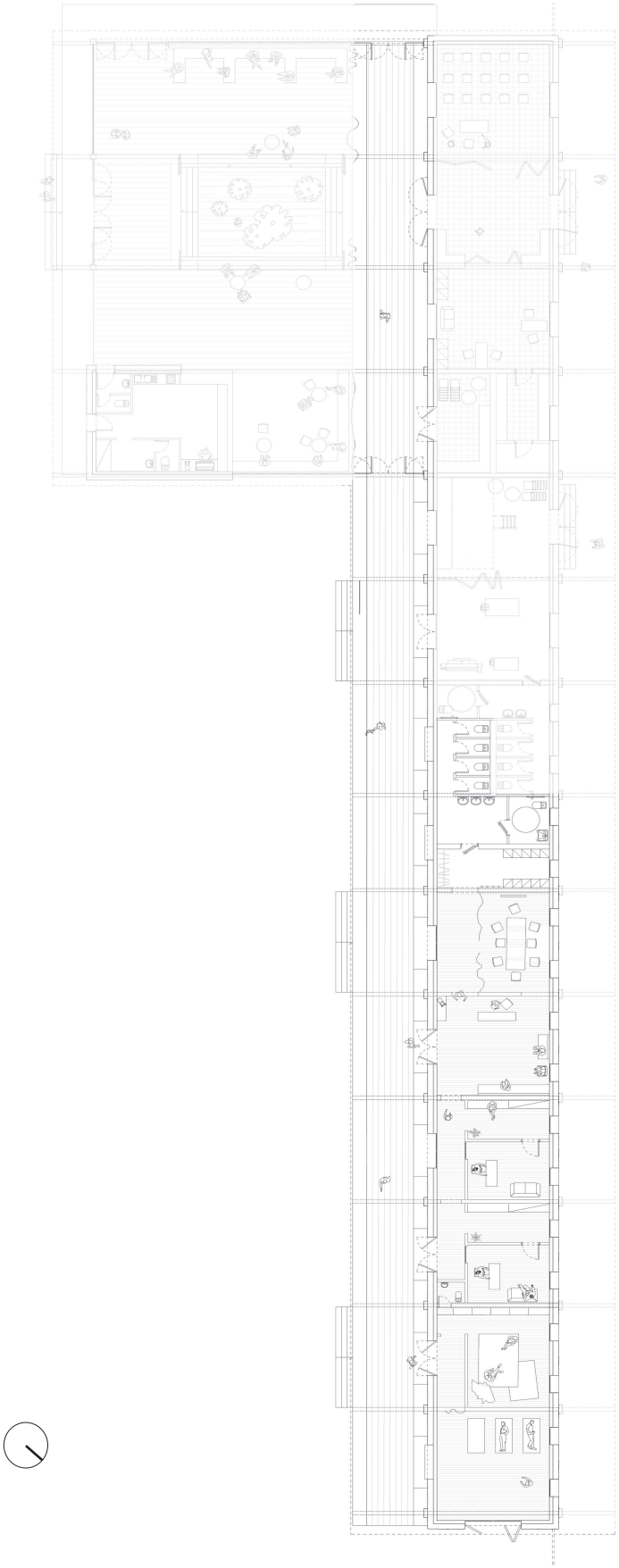
Programme



Commons area



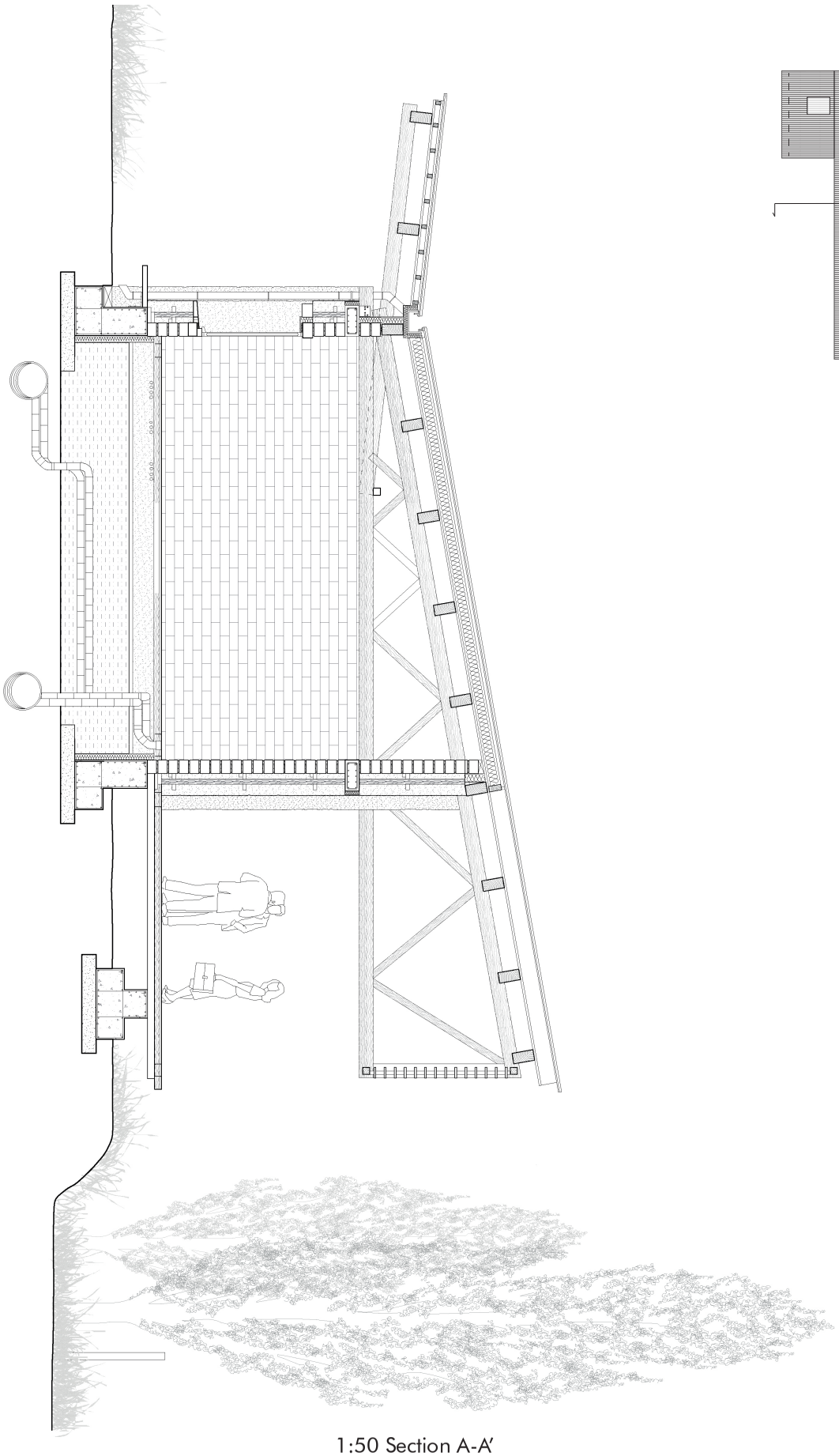
Les Nouveaux Disparus



Walking Therapy



Public - Private



1:50 Section A-A'

Summer situation (Jun-Sep)

Bruxelles
Jun 20.8 °C - Jul 22.5 °C - Aug 22.1 °C - Sep 19.2 °C

b. Cross ventilation

Air entering from S-side and coming out from high windows on the N-side

c. Shading

Hanging roof is avoiding the sun rays to touch the facade

Max sun elevation (Jun Solstice): 62 °

a. Earth air tunnel

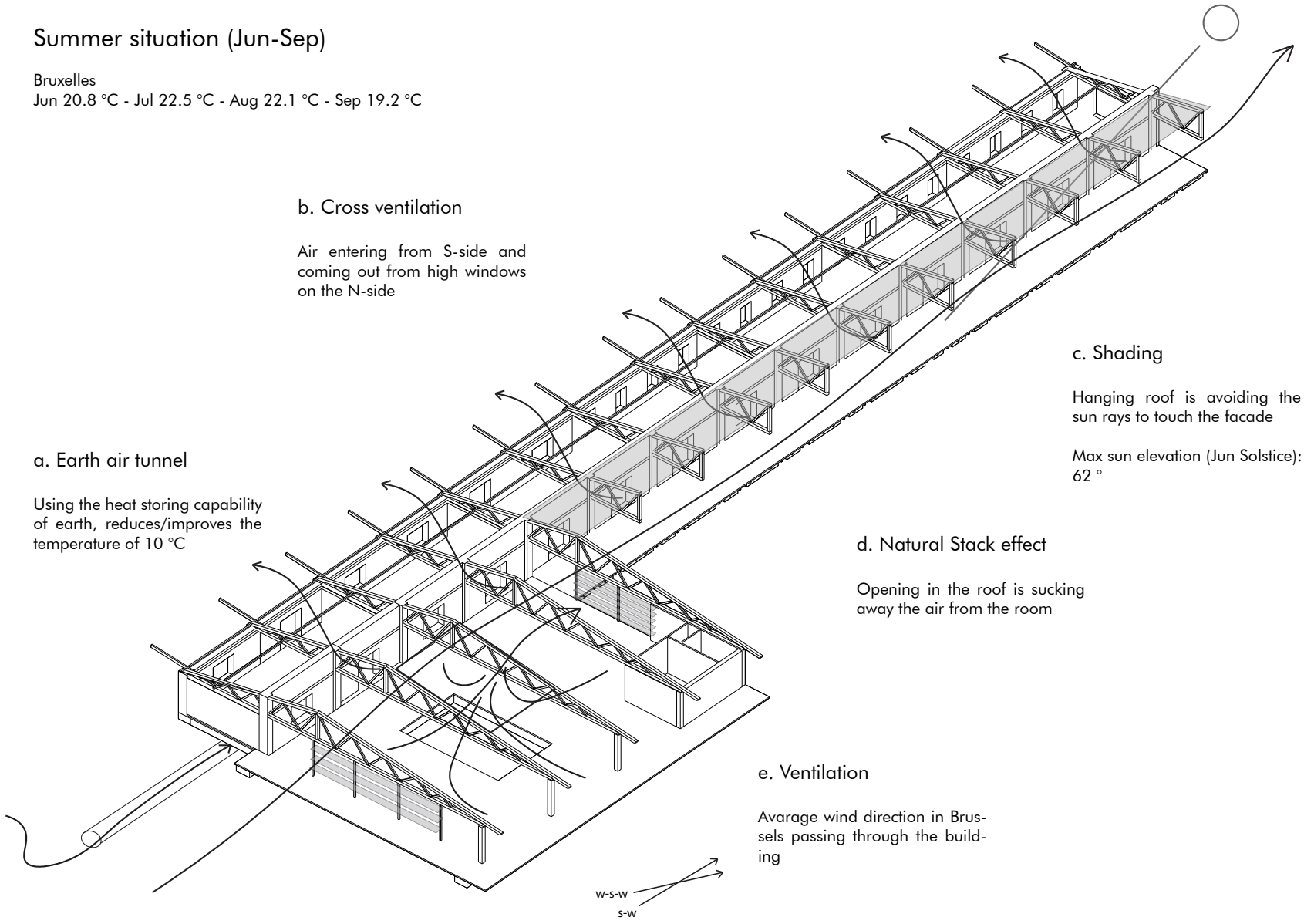
Using the heat storing capability of earth, reduces/improves the temperature of 10 °C

d. Natural Stack effect

Opening in the roof is sucking away the air from the room

e. Ventilation

Avarage wind direction in Brussels passing through the building



Winter situation (Dic-Mar)

Bruxelles
Dic 4.8 °C - Jan 3.8 °C - Feb 3.8 °C - Mar 6.4 °C

a. Earth air tunnel

Using the heat storing capability of earth improves the temperature of 10 °C and provides warm air to the room, togheter with the Duco top vent elements

b. Heat exchanger

High insulation from the hemp and earth bricks walls and heat exchanger on the windows to reduce the heat loss

c. Thermal mass

Hanging roof is repairing from the rain and allowing the solar rays to touch the facade

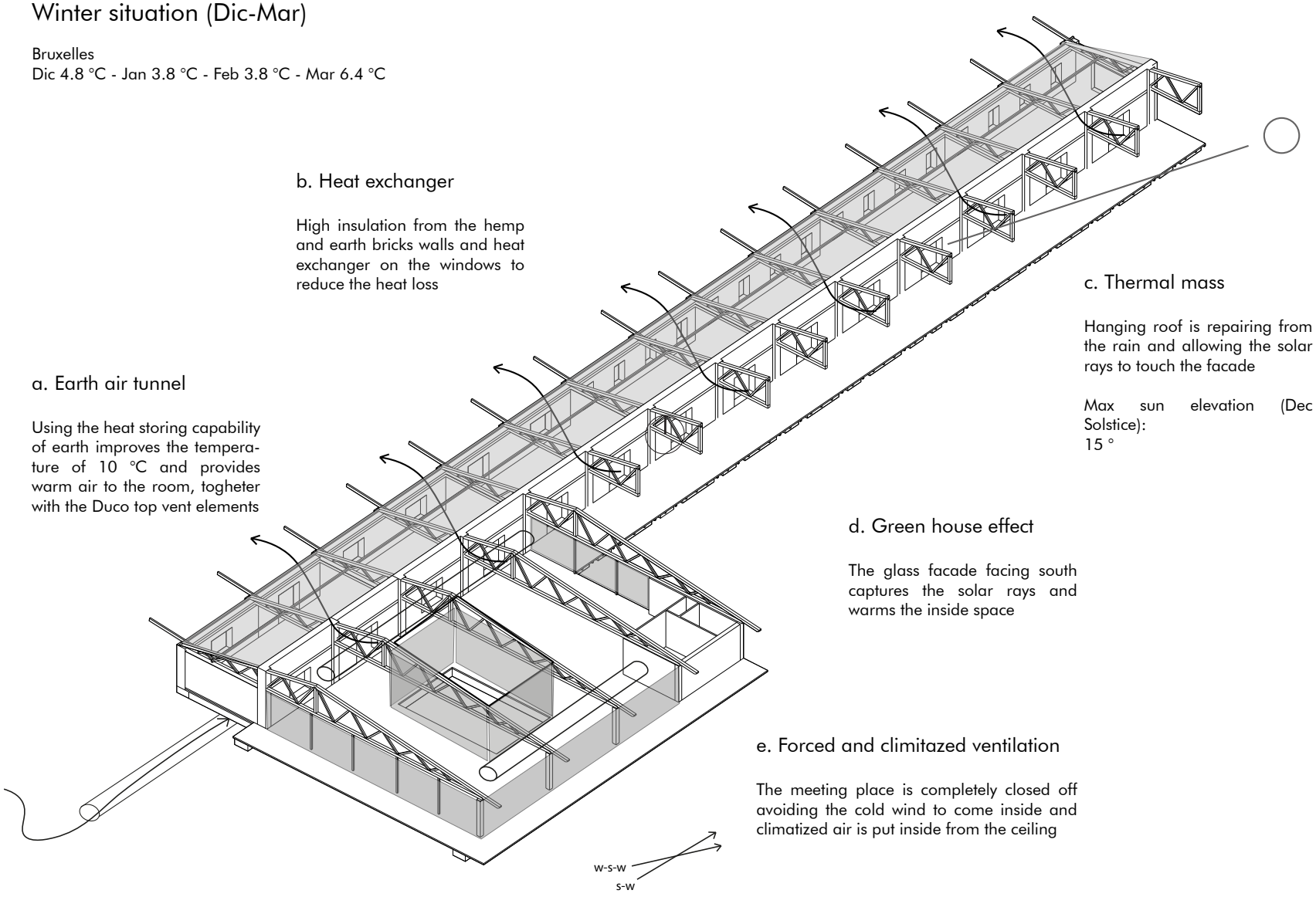
Max sun elevation (Dec Solstice):
15 °

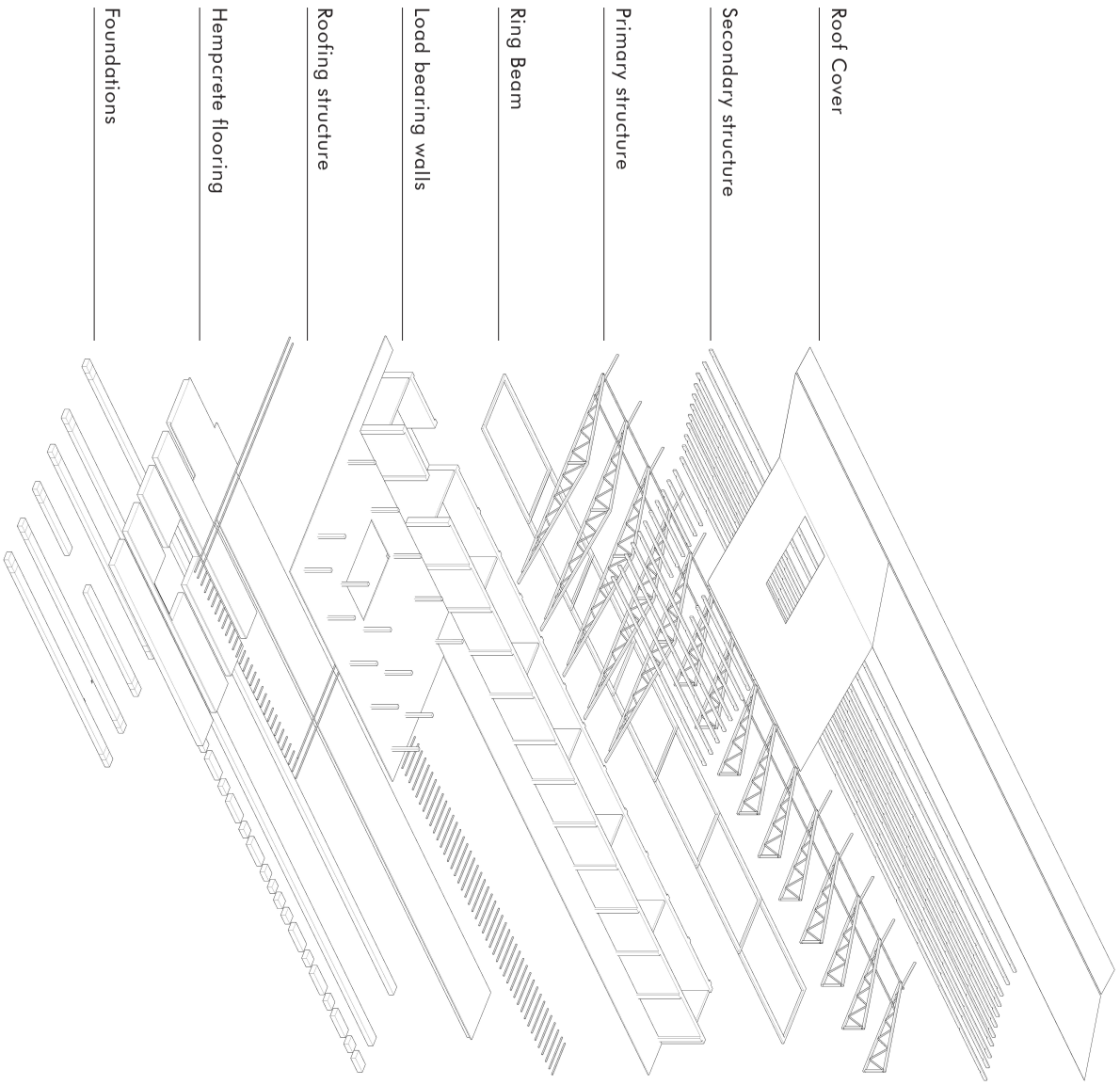
d. Green house effect

The glass facade facing south captures the solar rays and warms the inside space

e. Forced and climitazed ventilation

The meeting place is completely closed off avoiding the cold wind to come inside and climatized air is put inside from the ceiling





Structural axonometric view



Materials

Materialization - natural

Natural materials used to connect the people with the nature around and provide sensorial experience and warmness



Structural Walls

Rammed earth blocks

-Warm materials
-Local production line
-Resistant and fast assembly



External finishing

Sprayed hempcrete

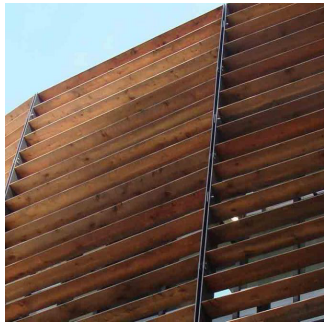
-Insulation
-"Hairy" and warm material
-Sustainable and accessible



Roof Structure

Timber trusses

(Pine/Epicea/E. Douglas)
-European timber
-Light colour
-High resistancy and life-span



Sunshading

Timber solar shading

-Natural material
-Easily replaceable
-Locally sources (E. Oak)



Interior finishing

Painted green cladding

-Cladding and finishing resembling nature colors
-Produced by local artisans (Cartoon123)

Materialization - Artificial

Artificial materials used to call back the industrial culture of the site and provide efficiency and materials easy to provide



Policarbonate panels



External electric cables



Window wooden-steel system



Concrete foundation



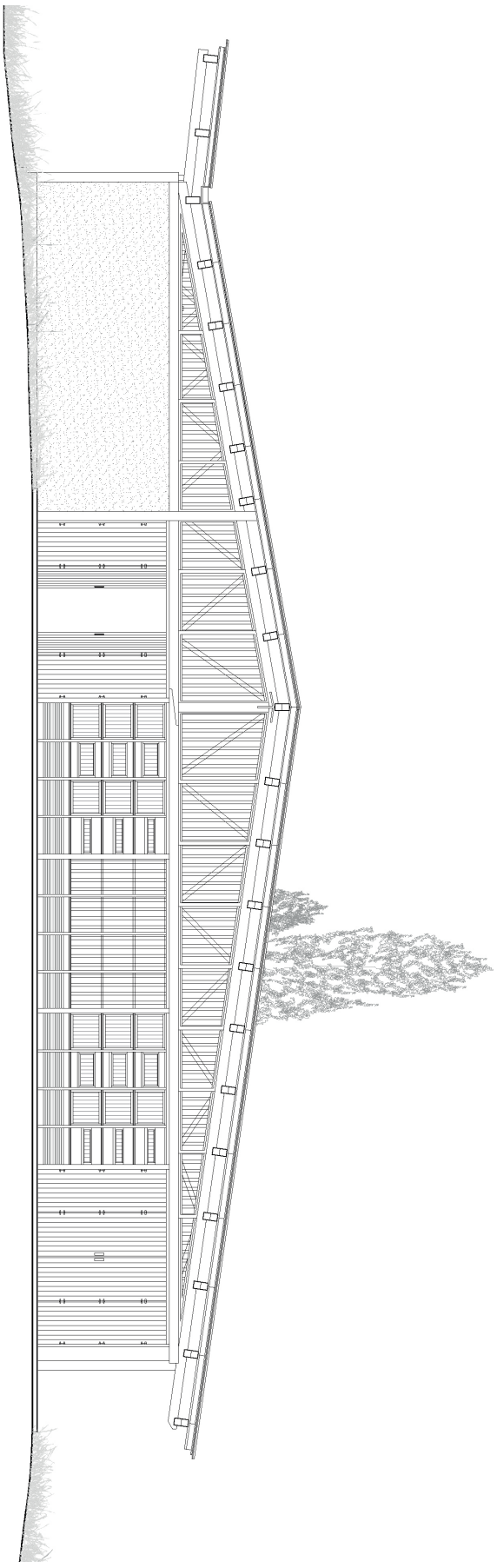
Corrugated steel roofing

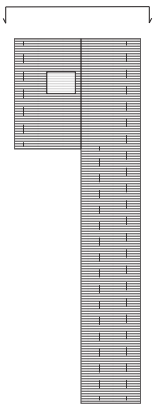




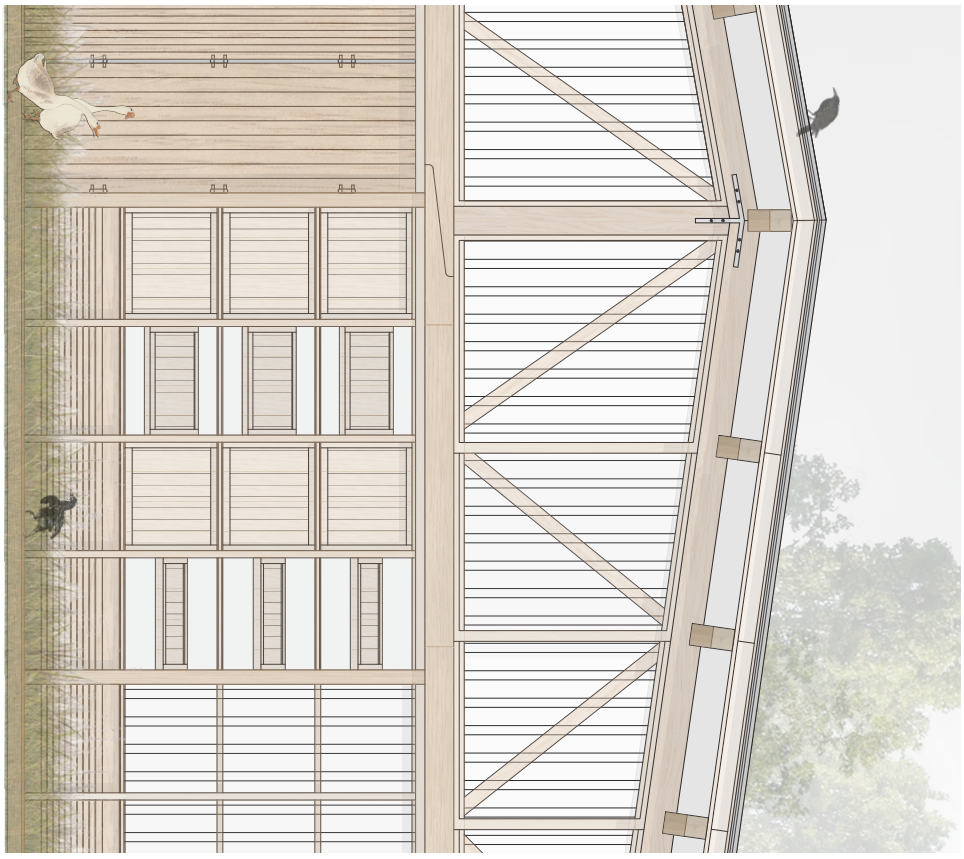
Crossing the Edge

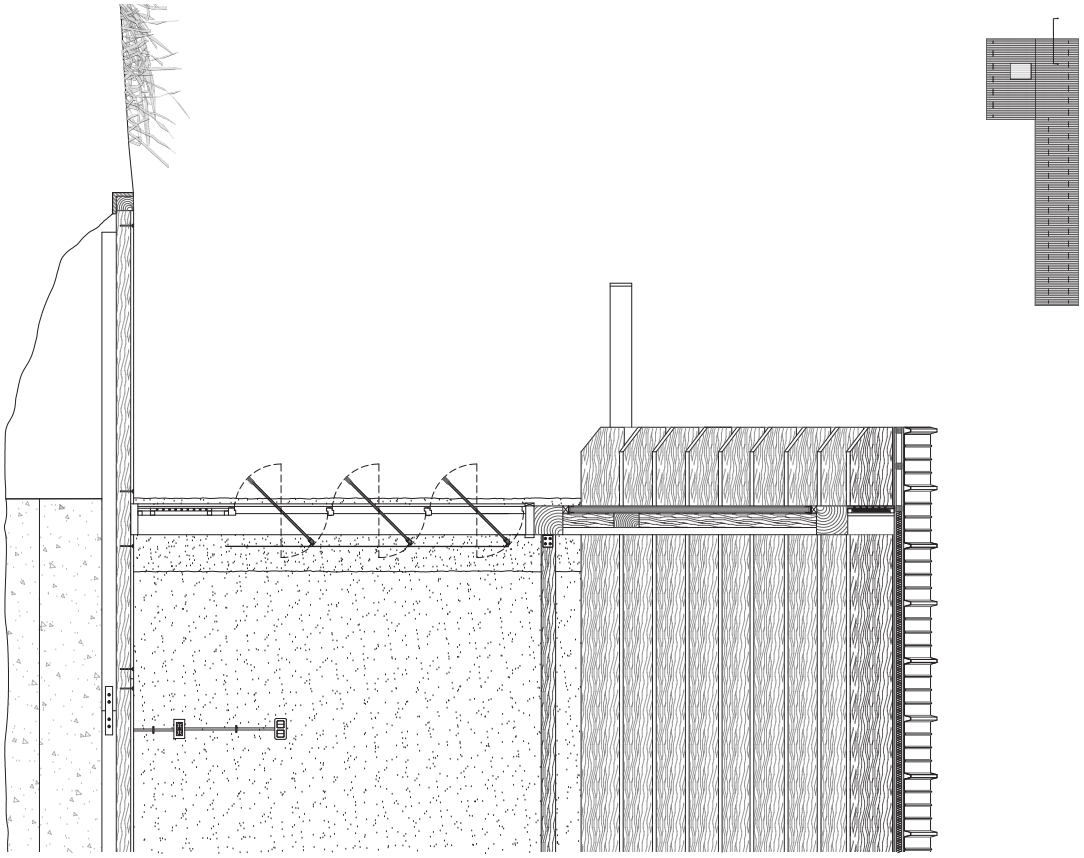
(Chapter 5 - part 1)





1:100 Facade South



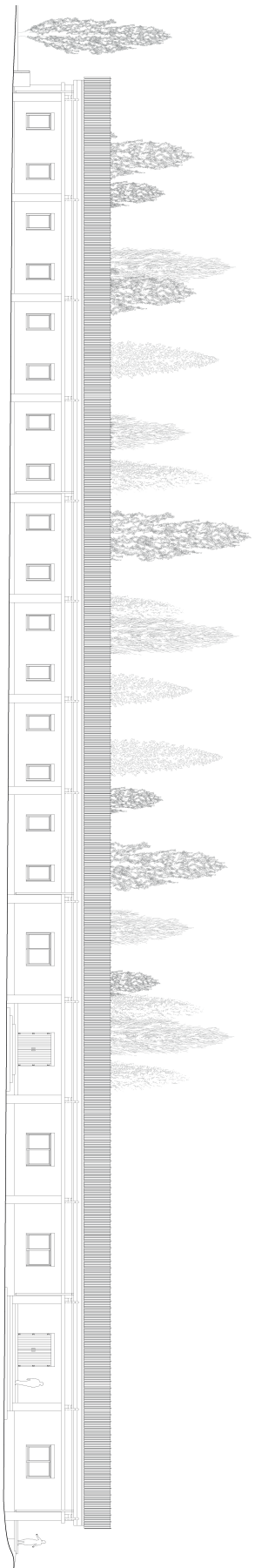


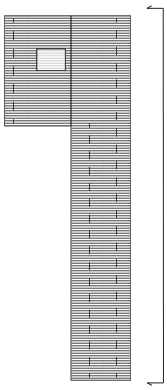
1:20 Facade and Section



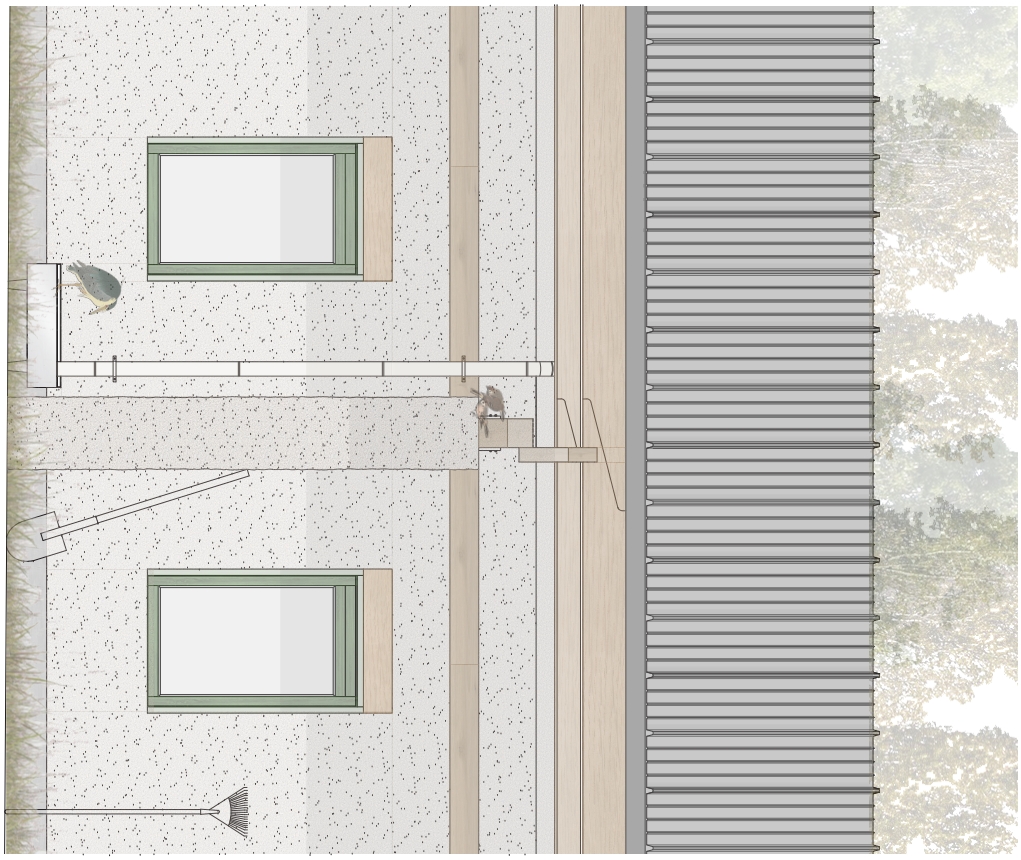
Meeting

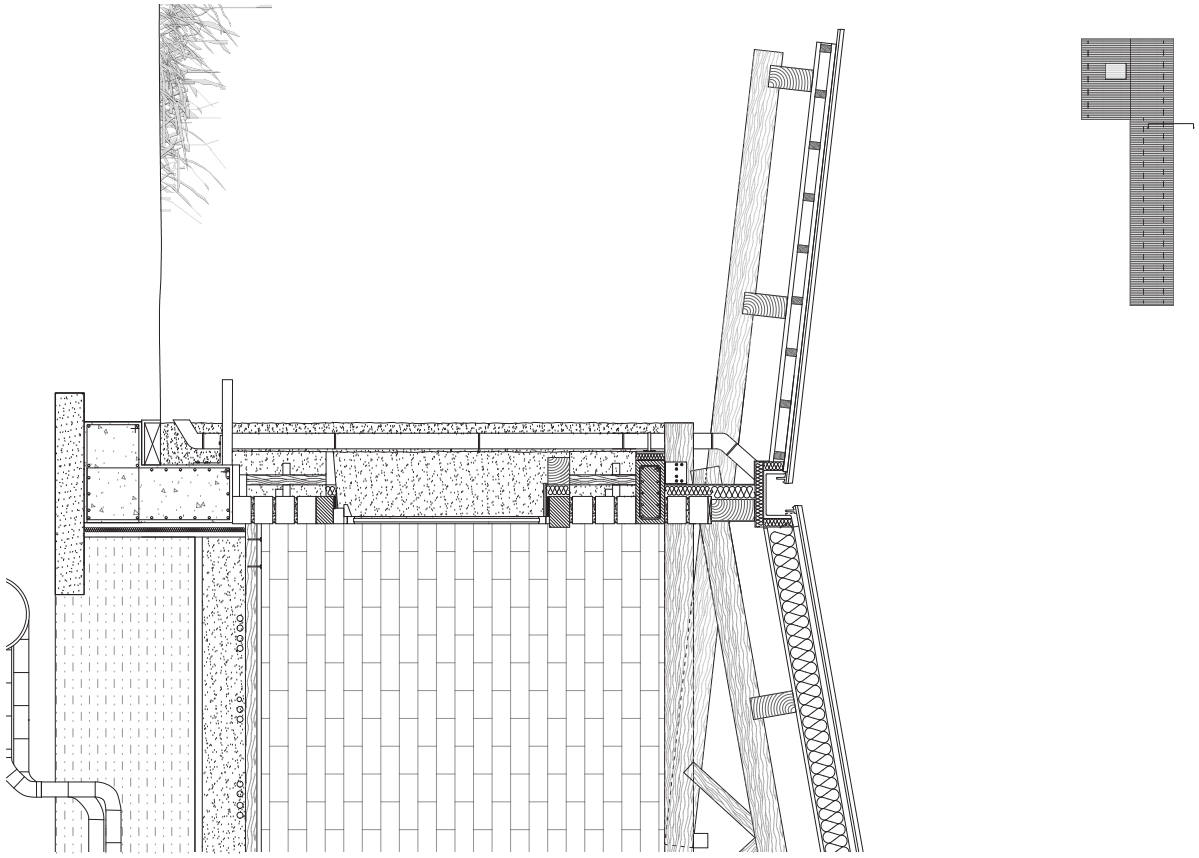
(Chapter 5 - part 2)



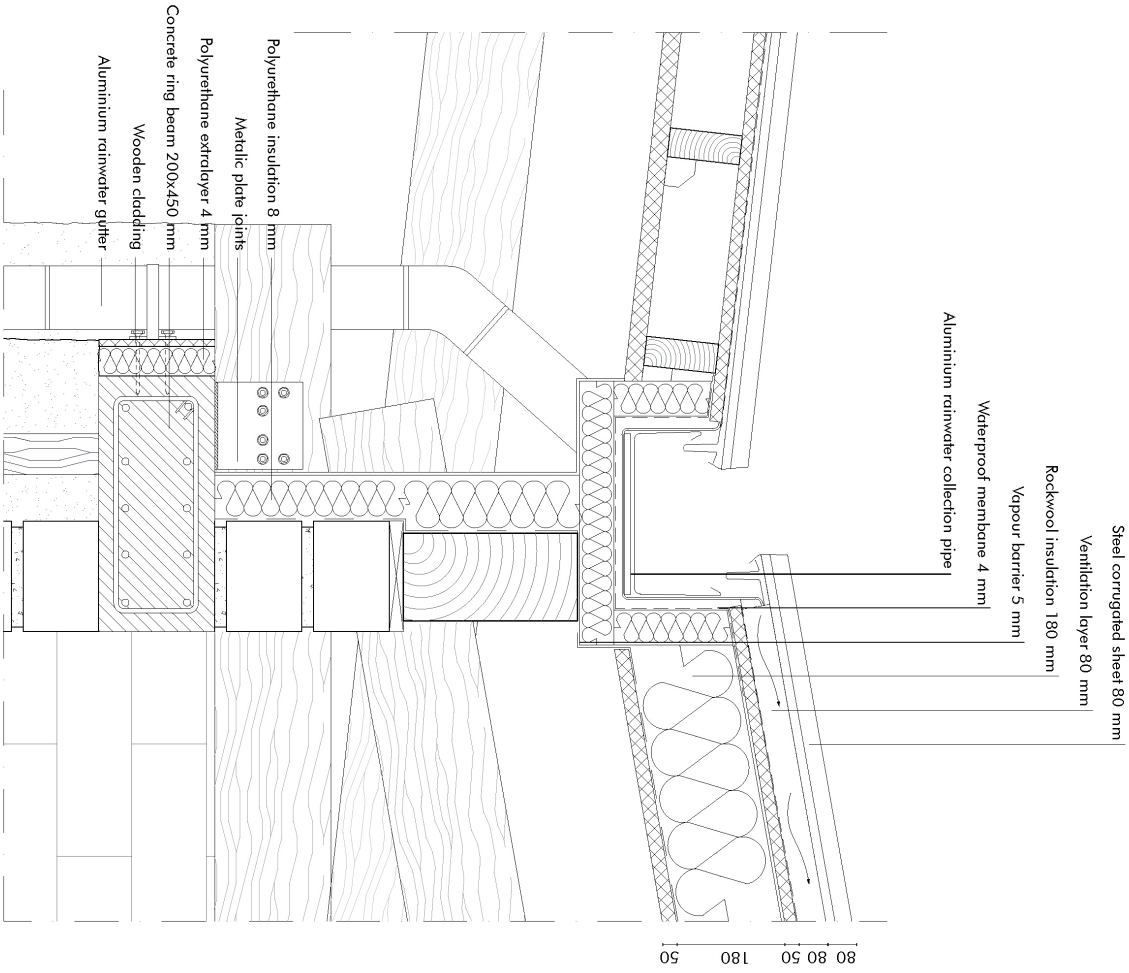


1:100 Facade West

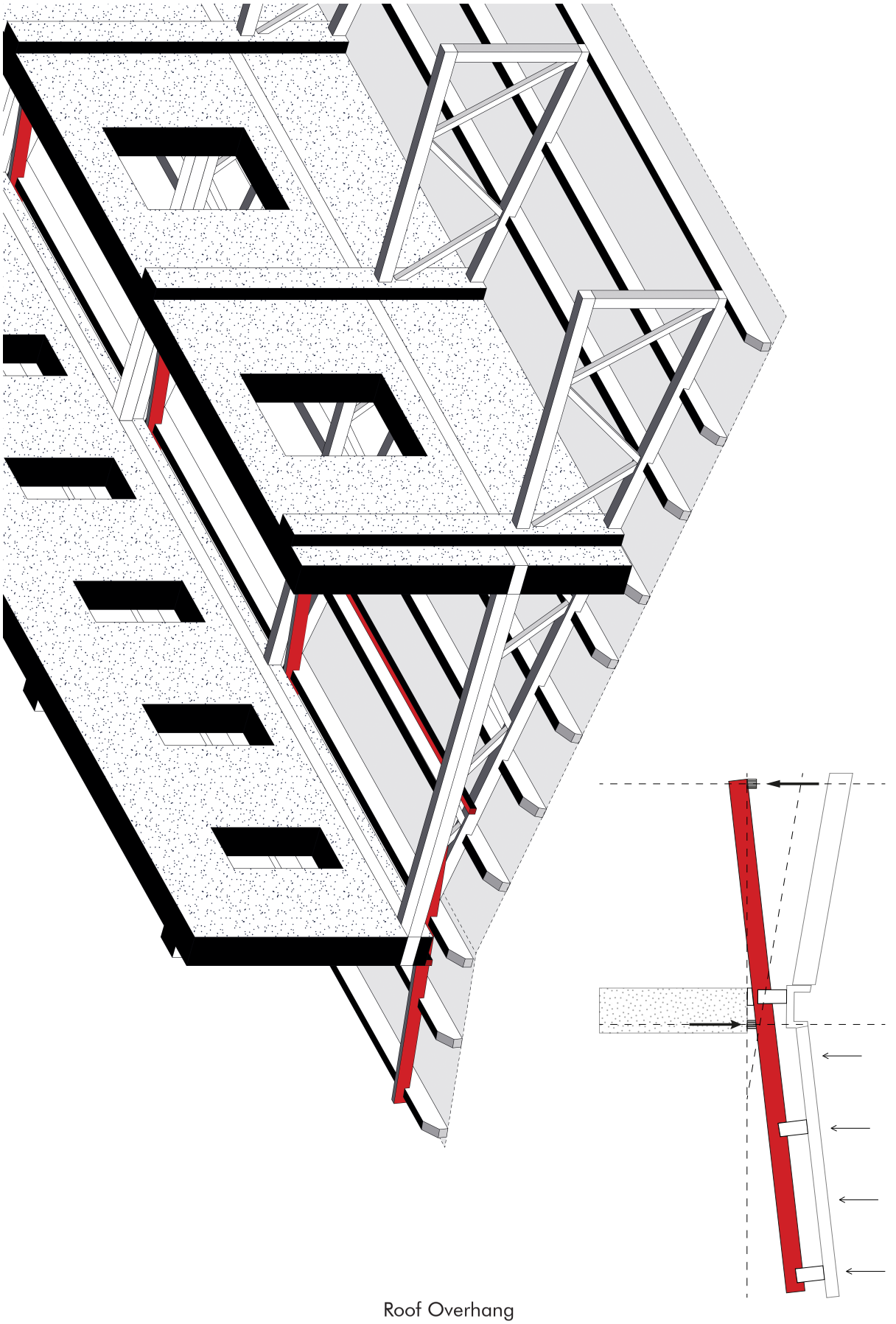




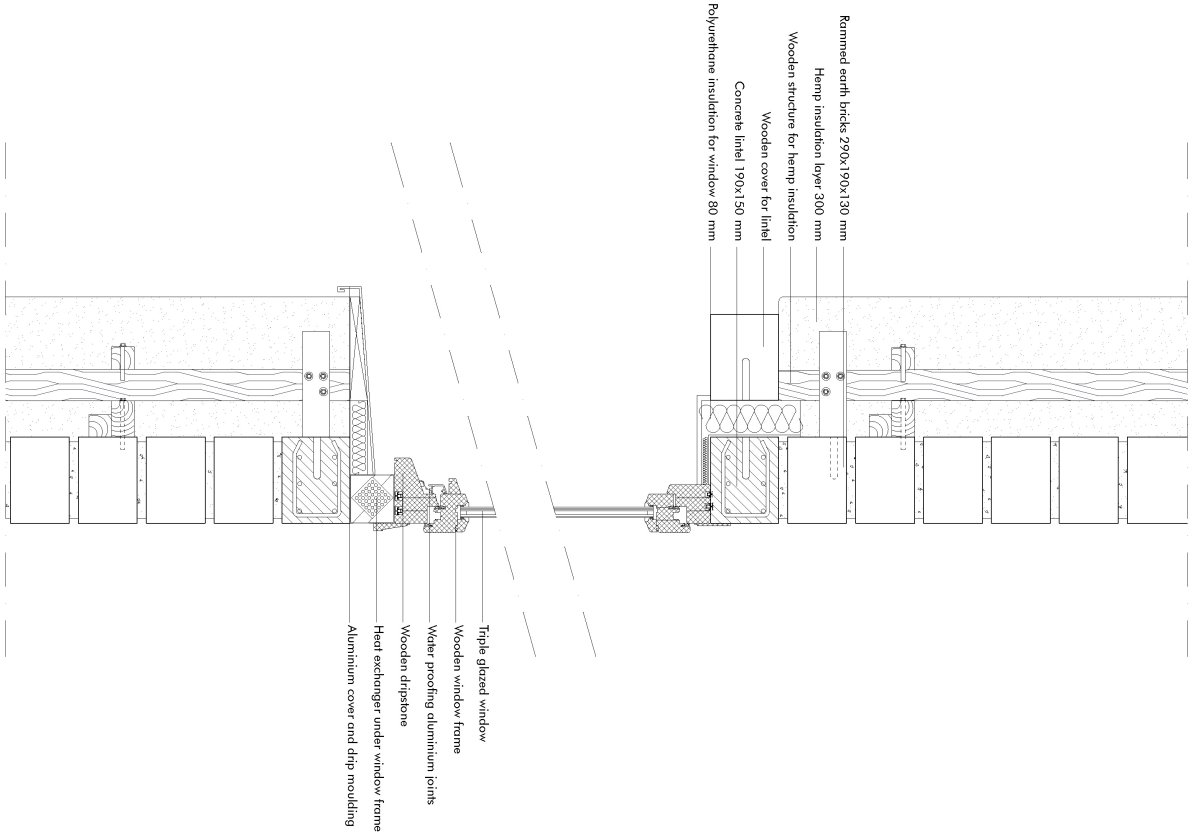
1:20 Facade and Section


Steel corrugated sheet 80 mm
Ventilation layer 80 mm
Rockwool insulation 180 mm
Vapour barrier 5 mm
Waterproof membane 4 mm
Aluminium rainwater collection pipe
Polyurethane insulation 8 mm
Metalic plate joints
Polyurethane extralayer 4 mm
Concrete ring beam 200x450 mm
Wooden cladding
Aluminium rainwater gutter
80 80 50 180 50

1:5 Detail 3



Roof Overhang

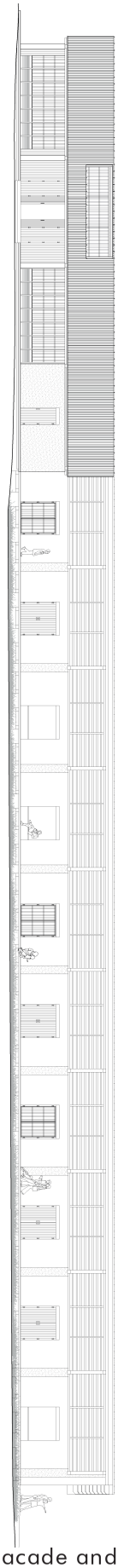

Rammed earth bricks 290x190x130 mm
Hemp insulation layer 300 mm
Wooden structure for hemp insulation
Wooden cover for lintel
Concrete lintel 190x150 mm
Polyurethane insulation for window 80 mm
Triple glazed window
Wooden window frame
Water proofing aluminium joints
Wooden dripstone
Heat exchanger under window frame
Aluminium cover and drip moulding

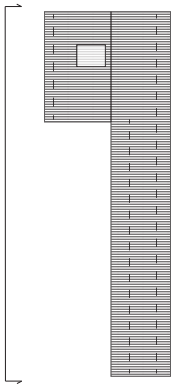
1:5 Detail 1



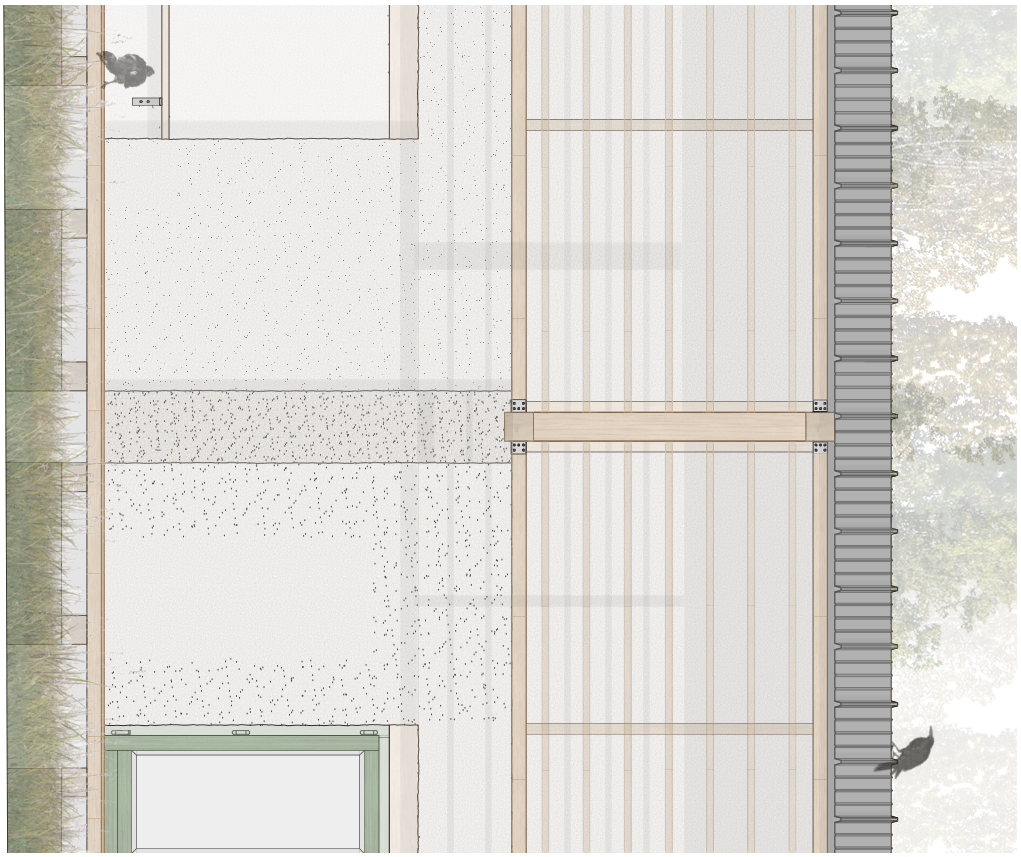
Walking the Promenade

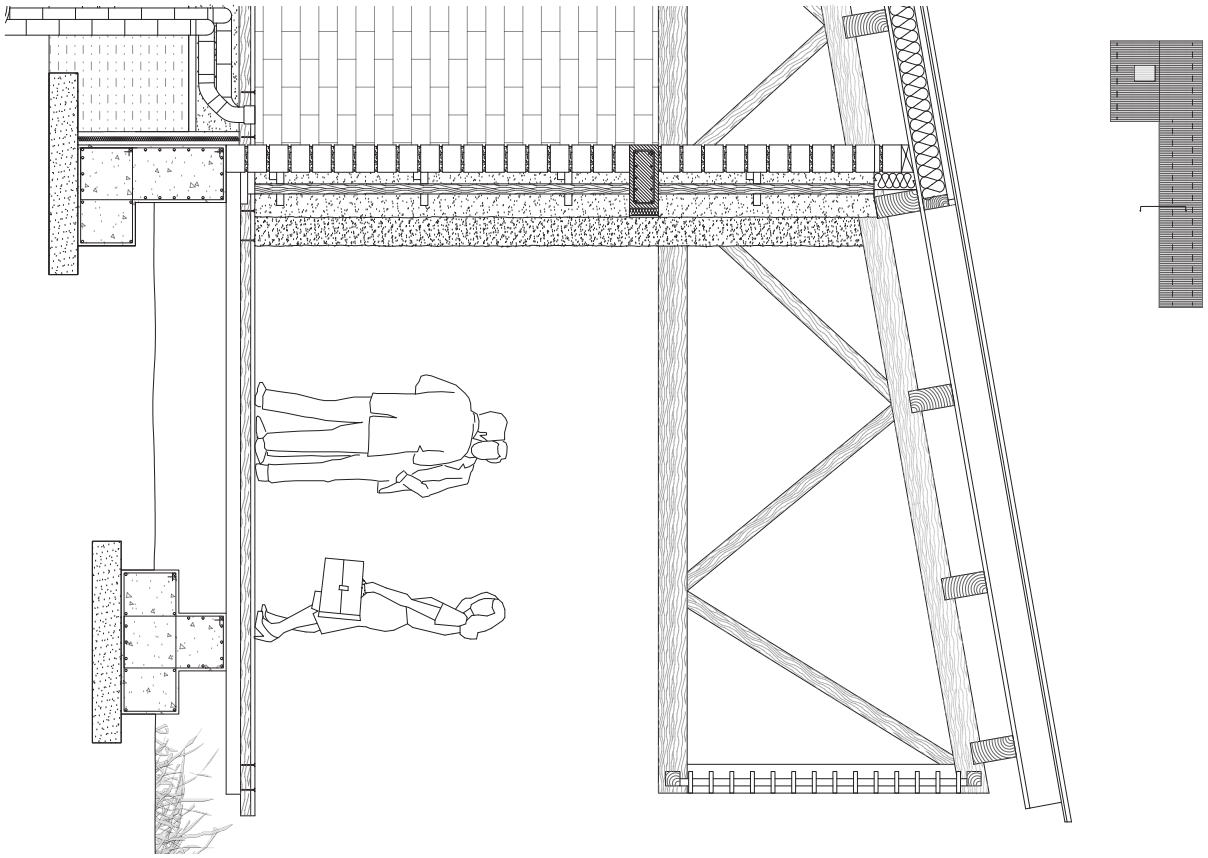
(Chapter 5 - part 3)



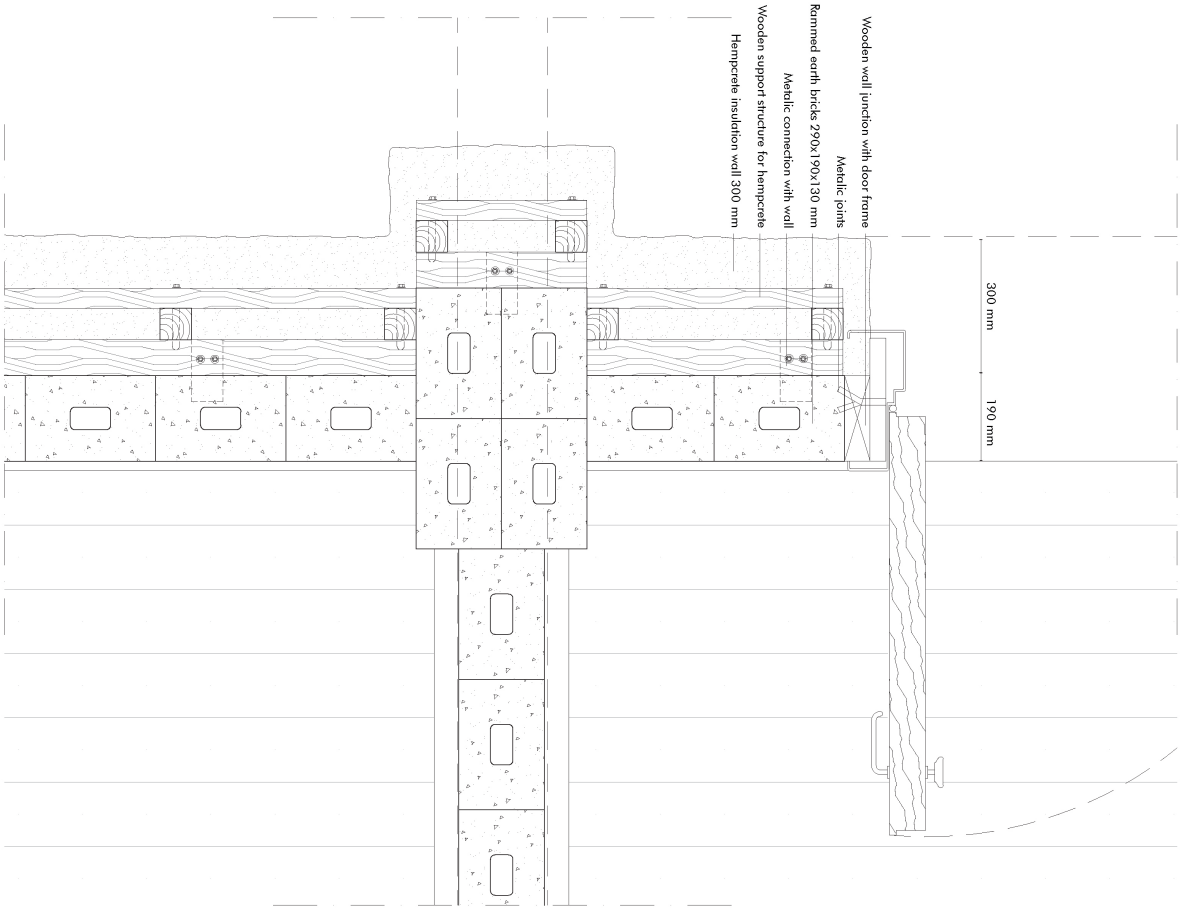


1:20 Facade and Section





1:20 Facade and Section

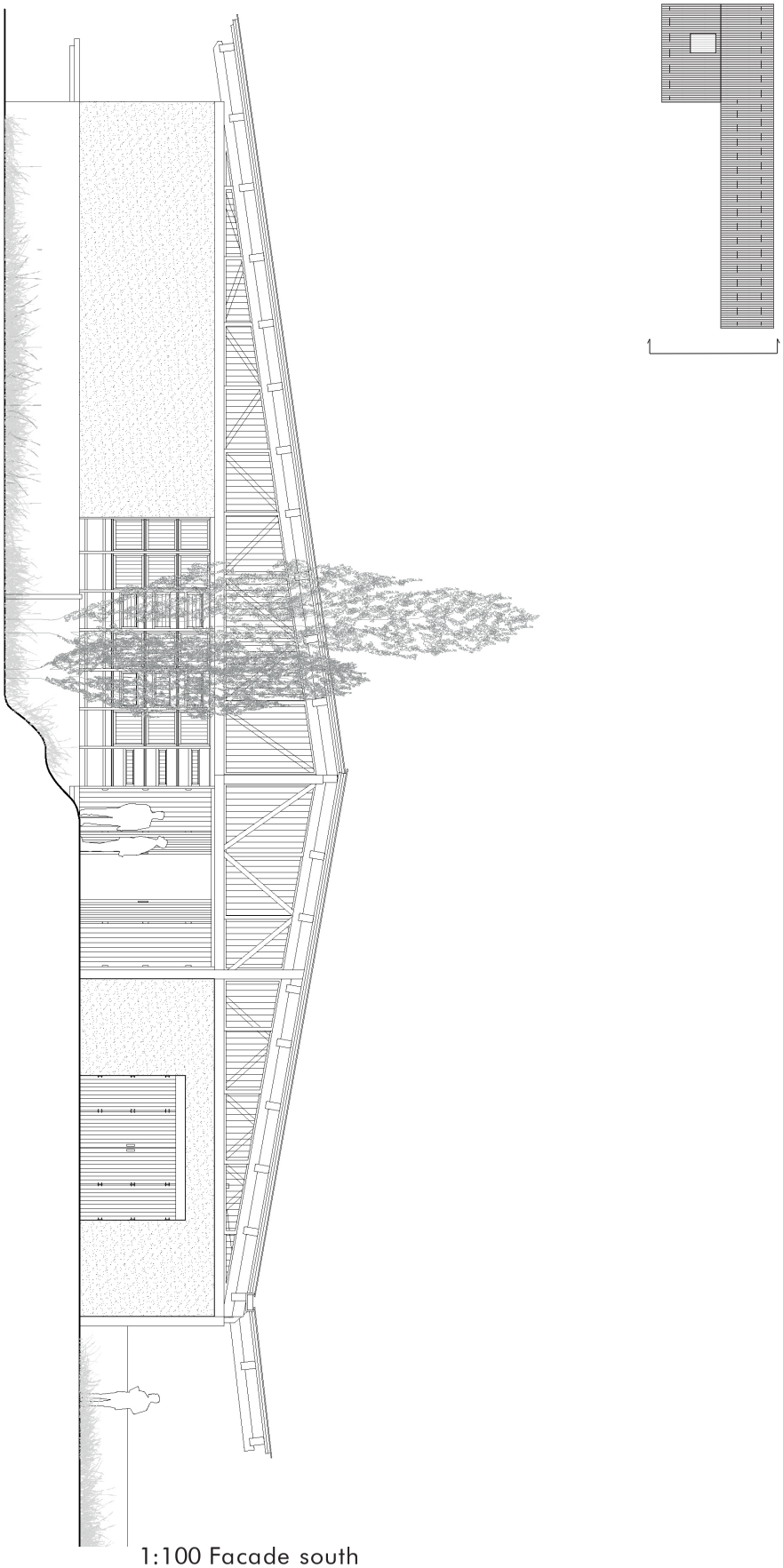

Wooden wall junction with door frame
Metalic joints
Rammed earth bricks 290x190x130 mm
Metalic connection with wall
Wooden support structure for hempcrete
Hempcrete insulation wall 300 mm
300 mm
190 mm

1:5 Detail 2

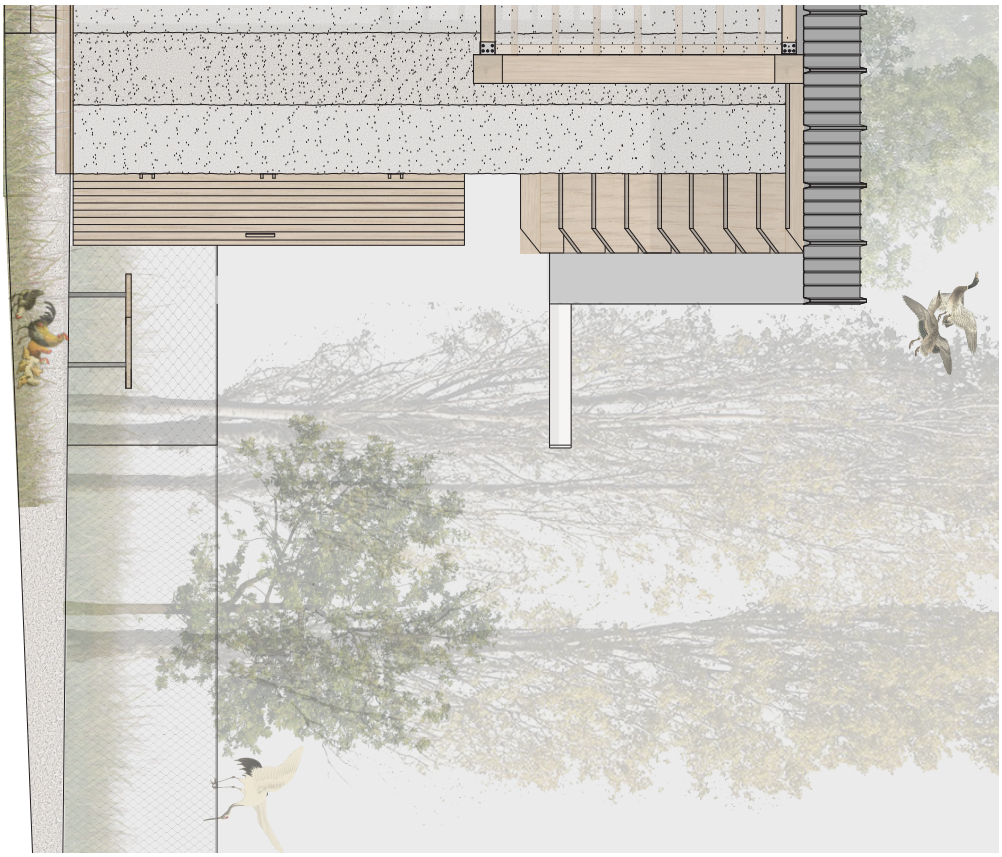


Arriving-Starting point

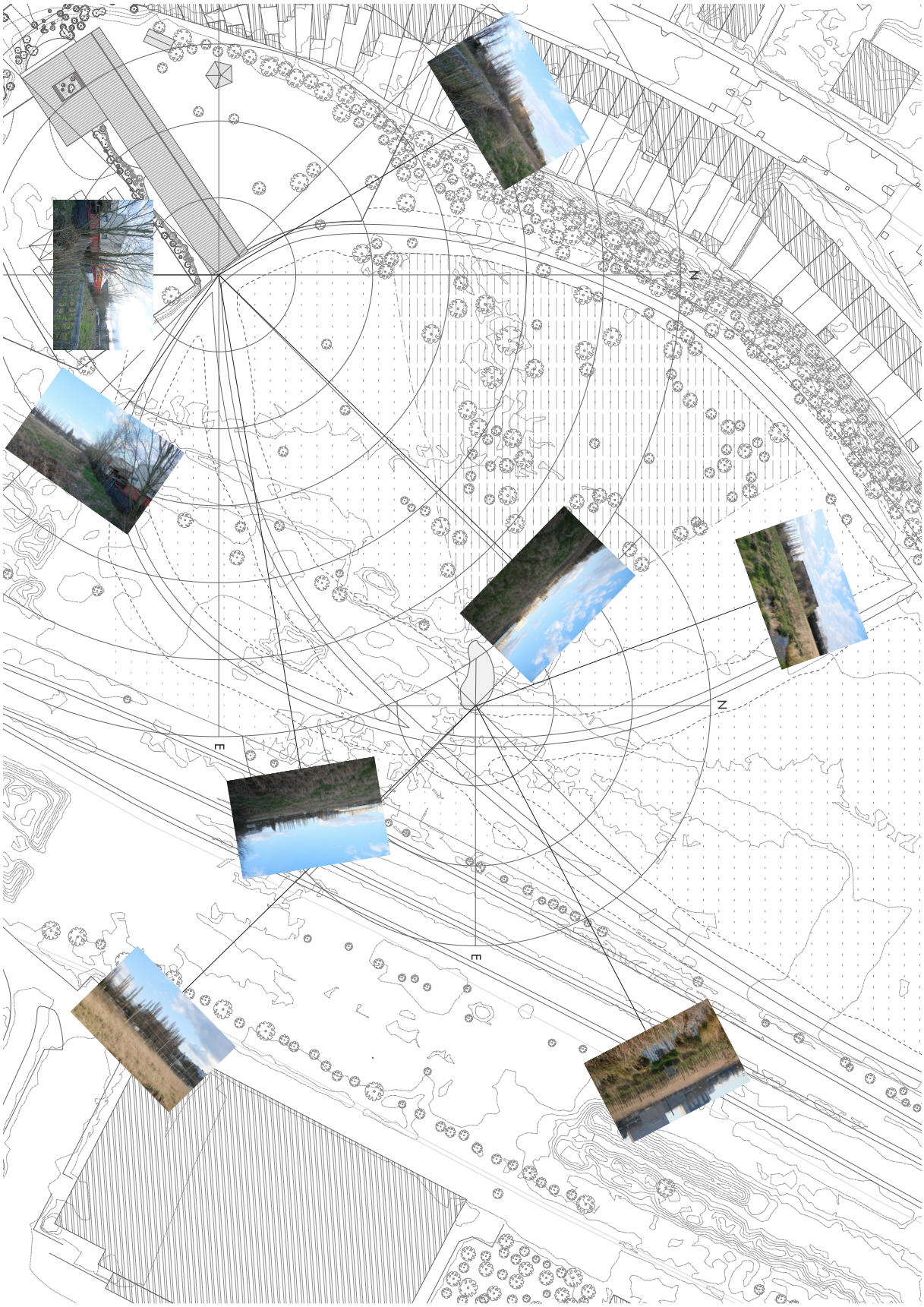
(Chapter 5 - part 4)



1:100 Facade south



1:20 Facade



Friche and nature's point of views











Thank you.



Urban Architecture - Last green in town
Master Architecture, Urbanism and Building Sciences
Gianluca Angeli - 5690986
2023-2024